

# QUALITY METALS *of industry*

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★ **WHITEHEAD**  
METAL PRODUCTS COMPANY, INC.



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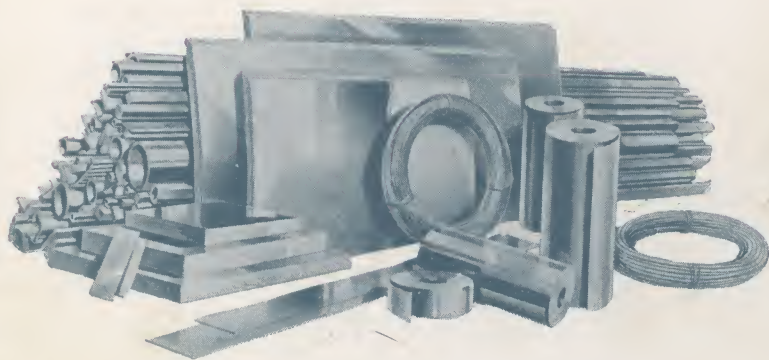
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*The*  
**QUALITY METALS**  
*of Industry*

**STOCK LIST NO. 14**



**WHITEHEAD METAL PRODUCTS COMPANY, INC.**  
303 WEST 10TH STREET, NEW YORK, N. Y.

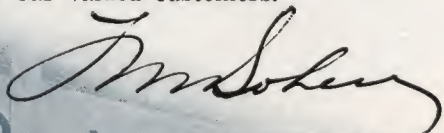
# The Quality Metals of Industry

## THE MOST COMPLETE NON-FERROUS METAL SERVICE IN AMERICA . . .

Non-ferrous metals are a necessity today. Our modern world has created an ever-increasing demand for strong, corrosion-resistant metals to meet new conceptions of service and durability. It is important to the fabricator—and to maintenance factors—to know where such metals are immediately available, in sizes, shapes and quantities to meet every need. We have listed in this book the items normally available in our various warehouses—the largest stock of non-ferrous metals in standard shapes and sizes carried in this country.

For over a quarter of a century we have by constant endeavor continuously expanded our service in supplying metals to the trade. We believe that we are now able to offer to our customers the most *complete* non-ferrous metal service in America. The following pages illustrate specific advantages of this complete Whitehead service. Moreover, we have maintained a scale of prices which make for real savings for those who let us serve them.

Our progress has been made possible by the loyal patronage of our customer friends. It is not often that we are able to thank these customers personally and, therefore, in presenting this stock list we welcome the opportunity of expressing our gratitude. It is our constant aim to maintain the enviable reputation we have earned and to deserve the continued support of our valued customers.

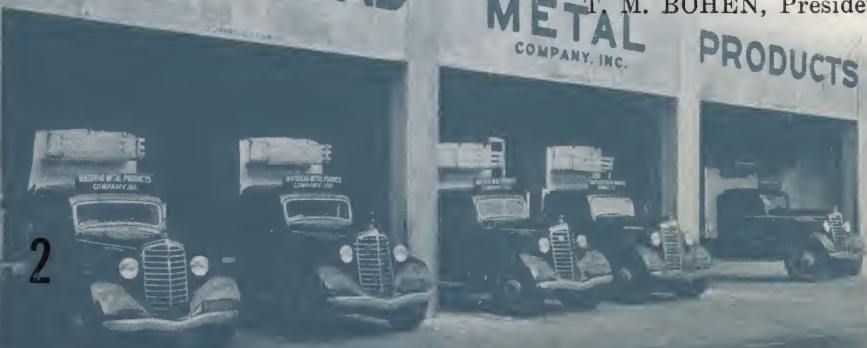


**METAL**  
COMPANY, INC.

T. M. BOHEN, President

**PRODUCTS**

**WHITEHEAD**





# The Quality Metals of Industry

**10,000,000 LBS.  
OF NON-FERROUS METALS  
IN OVER 10,000 DIFFERENT ITEMS**

## **ALUMINUM**

**BRASS**

+

**COPPER**

**COMMERCIAL BRONZE**

**TOBIN BRONZE**

+

**PHOSPHOR BRONZE**

+

**NICKEL SILVER**

+

**EVERDUR**

**MONEL**

**NICKEL**

**INCONEL**

**LEAD**

•

**ZINC**

*in all of the commercial forms*

**SHEETS**

**ROLL**

**STRIP**

**RODS**

**TUBE**

**PIPE**

**WIRE**

*and a complete line of*

## **ACCESSORIES AND SPECIALTIES**

such as Bolts, Nuts, Rivets, Screws, Welding Materials

The materials listed in this book are stock items regularly carried on our warehouse shelves. While all sizes are not carried in every warehouse, they are available from our other warehouses for immediate delivery. Complete sizes are carried in New York.



# The Quality Metals of Industry

## A WEALTH OF QUALITY FROM THE MILLS.

The Whitehead Company are distributors of non-ferrous metals. They are agents of distribution for the "big three" of America's metal producing companies—The International Nickel Company, The Aluminum Company of America and The American Brass Company. They represent a host of other mills and manufacturers of metal accessories and specialties.

THESE OUTSTANDING PRODUCERS SELECTED WHITEHEAD AS THEIR OUTLET. WHITEHEAD METALS ARE THE QUALITY METALS OF INDUSTRY, QUALITY BACKED BY THE PRESTIGE, THE RESOURCES, THE REPUTATION OF AMERICA'S GREATEST COMPANIES.

*Exclusive Eastern Distributors of*

### **THE INTERNATIONAL NICKEL CO., INC.**

The largest producers of Nickel, and the sole producers of Monel, throughout the world.

*Eastern Warehouse Distributors of*

### **ALUMINUM COMPANY OF AMERICA**

The largest producers in the world of Aluminum and Aluminum-Alloys.

*Distributors of*

### **THE AMERICAN BRASS COMPANY**

of the Anaconda Copper Mining Company, the world's largest producers of Copper and leading maker and fabricator of Copper and Copper Alloy products.

*Underground mining of bauxite, Aluminum Company of America mines, British Guiana.*



# The Quality Metals of Industry

## ...OF AMERICA'S GREATEST COMPANIES...

When you order from Whitehead, you are assured purity derived from virgin metals—high physical and mechanical properties founded in years of scientific laboratory experiment and practical mill experience—and consistency insured by production control and rigid inspection in the most modern mills. Leadership in the industry gained through experience and volume production, enable these companies to give you a “plus” value, worth many dollars when you purchase The Quality Metals of Industry.

Distributors for more than a score of other nationally known producers of metals and metal products, including:

C. O. JELLIFF MFG. CORP.

HANDY & HARMAN

SOMERS BRASS COMPANY, INC.

AMERICAN ZINC PRODUCTS COMPANY

DRIVER-HARRIS COMPANY

LUKENS STEEL COMPANY

METAL FORMING CORPORATION

ALLOY METAL WIRE CO., INC.

FEDERATED METALS COMPANY

CHICAGO EYE SHIELD COMPANY

and many others—the leading manufacturers in various fields.

*Reduction Works, Anaconda Copper  
Mining Company, Anaconda, Montana.*

# The Quality Metals of Industry

## A NETWORK OF WAREHOUSES THAT...

In distributing the Quality Metals of Industry, Whitehead has every facility to properly service the Eastern Seaboard—the thirteen Original States. You'll never have to adjust your needs to Whitehead's—we have already adjusted ourselves to your needs. For your prompt service you need a convenient warehouse, so we have established a network of them throughout the East—one near you. Stocked in each of these warehouses is a wide and diversified line. Practically everything you need is ready—waiting for your order. Millions of pounds of non-ferrous bars, sheets, rods and tubes are ready and waiting to serve the modern metal requirements of industry. You can consider Whitehead a part of your organization—your stockroom.

*Main Office and Warehouse*

**WHITEHEAD METAL PRODUCTS COMPANY, Inc.**

**303 WEST 10TH STREET, NEW YORK, N. Y.**

**TELEPHONE:**

**WATKINS 9-8338**





# The Quality Metals of Industry

## ... FORM YOUR NEARBY STOCKROOM

*Branch Offices and Warehouses*

### **PHILADELPHIA, PA.**

725 Arch Street

Telephones: Walnut 0890 and Main 2031

### **BOSTON, MASS.**

235 Bridge Street (Cambridge)

Telephone: Trowbridge 4680

### **NEWARK, N. J.**

205 Frelinghuysen Avenue

Telephone: Bigelow 3-4200

### **BUFFALO, N. Y.**

254 Court Street

Telephone: Cleveland 1475

*District Representatives:*

### **BALTIMORE, MD.**

Room 1012, Court Square Bldg.

Telephone, Lexington 7392

### **NEW HAVEN, CONN.**

63 Fernwood Road, Hamden

Telephone, New Haven 2-2922

### **RICHMOND, VA.**

4309 Grove Avenue

Telephone 4-7081

### **ALBANY, N. Y.**

44 Fairlawn Ave.

Telephone, Albany 8-1917

### **ROCHESTER, N. Y.**

217 East Ave.

Telephone, Stone 3093

### **SYRACUSE, N. Y.**

317 State Tower Bldg.

Telephone, 3-3319

*Whitehead Branch Office and  
Warehouse, Boston, Mass.*



# The Quality Metals of Industry

## **SPECIAL SERVICES—to save you time, money and inconvenience.**

Whitehead's Special Service Department is an important factor in the service Whitehead renders in its distribution of non-ferrous metals. Only in an organization large enough to give you complete service can you secure the personalized cutting facilities that enable you to get immediate deliveries to your specified dimensions and requirements. We have installed machinery for the sawing, shearing and slitting of stock sizes of sheets, the cutting of rods, tubes, pipe and shapes and the threading of rods and pipe.

Consistent with commercial practice, we will cut stock sizes of Aluminum, Brass, Copper, Commercial Bronze, Tobin and Phosphor Bronze, Nickel Silver, Everdur, and Monel and Nickel to your requirements within commercial limits and tolerances. Careful attention is given to our cutting operations to attain the same accuracy as on a mill delivery. The best of modern cutting machinery, operated by skilled workmen, speeds your individual cut orders on their way.

This service enables you to purchase metals exactly as you wish them, cut without waste, without the delay and inconvenience of ordering from the mill or depending upon another source for this service. Thus from the stocking of metals to the cutting which enables you to utilize them most advantageously, Whitehead is at your service.





# The Quality Metals of Industry

## **TECHNICAL AID**—to help you solve your specific metal problems.

Whitehead Technical Aid begins with our seasoned, metal-wise salesmen!

With a wealth of practical, down-to-earth experience in the most effective and economical applications of every non-ferrous metal, the Whitehead salesman can intelligently discuss your requirements in your language from your point-of-view.

Behind our salesmen are the complete facilities of the Whitehead organization, including technical service, development and research organizations, laboratories, and all those other technical aids upon which metal users so frequently must rely.

At your command are specialists who know the "why," "where" and "when" of all kinds of metals under all conditions. Their suggestions are practical, impartial, constructive. Their specific recommendations are based on years of experience in working out every type of metal problem.

All of the data accumulated by the various technical services at Whitehead's disposal is also available in the form of printed engineering bulletins. The development and research departments are constantly revising and improving these pamphlets to keep pace with the latest developments in each industry.

To help you cut manufacturing costs—expedite operations—and at the same time produce a better job—is the primary purpose of Whitehead Technical Aid.



# The Quality Metals of Industry

## **AN ORGANIZATION geared to speed your orders.**

Whitehead has always been noted for prompt service—and this is why: For a quarter of a century we've been building an organization—and the equipment—to give you the kind of service you want, in the emergency as well as for your normal orders.

With adequate storage space arranged for efficient handling (the New York Office alone covers four floors of an entire block building), and experienced personnel in office and warehouse (over 300 in New York) accustomed to utilizing all modern shipping facilities, your order is speeded on its way.

But more than speed is demanded in the availability of basic materials such as metals—deliveries must be regular—shipments must be accurate—materials must be exact. Modern business can only be as efficient as its source of supply.

The Whitehead Company constitutes a dependable source of supply. Our private railway siding facilities assure the boast of "a ton or a pound—it makes no difference."

The ease of flow of materials through the warehouse coordinates every item of your order. Speed of delivery by our own fleet of trucks enables you to consider Whitehead a part of your organization—your stockroom. Whether your need is small or large, simple or complicated, you can depend on Whitehead to get it to you without delay.





# The Quality Metals of Industry

## STOCK SHIPMENTS . . . . . . at MILL PRICES

Whitehead represents America's greatest non-ferrous mills, those of The American Brass Company, The Aluminum Company of America and The International Nickel Company—and Whitehead brings these mills to your front door! Whitehead warehouses stock ten million pounds of non-ferrous metals in over ten thousand different items—waiting for your order.

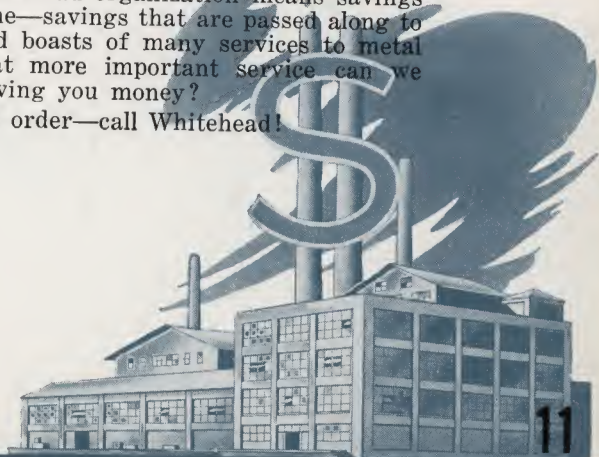
You can purchase materials exactly as you wish them, cut to size with mill accuracy, without the delay and inconvenience of ordering from the mill.

In any business, in any production, time is as important as money itself. It is money. Time lost is money lost. Time saved is money gained. That's why Whitehead's huge and varied stock of non-ferrous metals—available for shipment without delay—means money to you in your business, in your production.

And most items in Whitehead's stock are at regular mill prices. You pay no premium for the convenience Whitehead offers—you pay no premium to enjoy the advantages of complete stocks readily available.

There's profit in buying, when you buy from Whitehead. Stock shipments are economical. The size of the Whitehead organization means savings all along the line—savings that are passed along to you. Whitehead boasts of many services to metal users, but what more important service can we render than saving you money?

On your next order—call Whitehead!



# The Quality Metals of Industry

## Terms of Sale

**PRICES**—Subject to change without notice and all quotations made by this Company or its Agents, unless otherwise agreed, are binding subject to immediate acceptance.

**CREDIT TERMS**—Net cash 30 days, or bills may be discounted at rates shown below provided payments are made as follows: Bills dated the 1st to the 15th inclusive, if paid on or before the 25th of the month; bills dated 16th to and including the last day of the month, if paid on or before the 10th of the following month. Bills must be dated the day of shipment.

On accounts not paid within 30 days from the end of month in which bills are rendered, interest must be collected at the rate of 6% per annum beginning on the first of the month following the date on which payment is due.

**ALUMINUM PRODUCTS (Except Insect Screen Cloth)**—Net  
**BRASS, BRONZE, COPPER (Except Bare Copper Wire) EVERDUR, MUNTZ METAL, NICKEL SILVER, AMBRAC, CUPRO-NICKEL AND ZINC**—1%.

**BARE COPPER WIRE**— $\frac{1}{2}$  of 1%.

**MONEL, NICKEL, INCONEL, (Including INGOT & SHOT), MONEL CLAD, NICKEL CLAD and INCONEL CLAD STEEL**— $\frac{1}{2}$  of 1%.

**PURE BLOCK TIN**—Net.

**"JELLIFF" WIRE CLOTH**

Aluminum—Net.

Brass, Copper, Bronze, Steel—1%.

Monel, Nickel, and Stainless Steel— $\frac{1}{2}$  of 1%.

**BRASS STRAINER CLOTH**—2%.

**"JELLIFF" INSECT SCREEN CLOTH**—Aluminum, Copper, Bronze, Monel & Stainless Steel—2%.

**"JELLIFF" WIRE BASKETS, RIDDLES & SIEVES**—2%.

**"CESCO" HEAD & EYE PROTECTION MATERIALS**—2%.

**ALL SOLDER (Except Aluminum)**—1%.

**ALL BRAZING ALLOYS (Except Aluminum)**—1%.

**COPPER ROOFING MATERIALS**—as follows:

**LEADER & GUTTER**—1% 10 days; 30 days Net.

**ELBOWS, SHOES, STRAPS, HANGERS, STRAINERS, ETC**—1%.

**"WHITEHEAD" RANGE BOILERS**—2% 10 days; 30 days Net.

**"WHITEHEAD" WATER HEATERS**—1% 10 days; 30 days Net.



# *The Quality Metals of Industry*

## **Terms of Sale—Cont.**

**OWNERSHIP OF TOOLS**—All Dies, Tools, etc., remain the exclusive property of this Company. This is not affected by any charge made to cover labor and expense involved in altering or making such new Dies, Tools, etc.

**ADJUSTMENT OF CLAIMS**—Materials sold by this Company are warranted to be free from defects in material and workmanship, but this express warranty is in lieu of and excludes all other warranties. Defective material may be returned to us after inspection by us and upon receipt of definite shipping instructions from us. Goods so returned will be replaced or repaired without charge, but we shall not be liable for loss or damage directly or indirectly arising from the use of the material or from any other cause. Our liability being expressly limited to the replacement or repair of defective material. Every claim on account of defective material, short weight or any other cause shall be deemed waived by you unless made in writing within sixty (60) days from the date of shipment of goods, to which such claim relates.

**CRATING, BURLAPPING, BOXING OR SPECIAL PACKING AND CARTAGE**—Will be charged at cost unless otherwise agreed upon.

**CANCELLATION OF ORDERS**—For special materials will not be accepted without our written consent.

**CONFIRMATION ORDERS**—Confirmation orders should be plainly marked across the face with the word "Confirmation" in large letters. Unless they are so marked, confirmation orders may be treated as originals and filled in duplicate. In such instances we will not be responsible for the expense and inconvenience involved.

**DELAYS OR NON-DELIVERY**—This Company, as the Seller, will not be liable for non-delivery of goods or delay in the performance of orders or contracts or in the delivery or shipment of goods or for any damages suffered by any Buyer by reason of such non-delivery or delay, when such non-delivery or delay is, directly or indirectly, caused by or in any manner arises from acts of God, wars (whether international or civil and whether or not affecting the country of the Buyer or the Seller), shortage of materials or supplies now or hereafter ordered or interruption or delay in the delivery thereof, plant breakdowns or disability for any cause whatsoever, strikes or other labor disturbances, delays or interruptions in transportation facilities, requirements or regulations or policies of any government and all other disabling causes or contingencies reasonably beyond the Seller's control.

# The Quality Metals of Industry

## Rules to Observe in Ordering

### GENERAL INFORMATION DESIRED

In meeting all requirements of the trade, so many different alloys, tempers and anneals must necessarily be used, that it is not practicable to outline in a stock list the kind or quality of metal best suited for a particular purpose.

Therefore, in addition to information regarding thickness, width, length, finish and temper which should invariably appear on each order, it is essential that initial orders should *state plainly the purpose for which the material is intended* and so far as possible how it is to be worked. A sample or blue print will aid in determining the proper materials required.

### THEORETICAL WEIGHTS

When ordering it should be borne in mind that all weights in this book are theoretical and may vary in actual practice. They have been carefully figured and checked, but we cannot be responsible for errors.

### GAUGE

*The adoption of the Micrometer Caliper* to determine the thickness of metal or the size of wire in decimal parts of an inch, and the abolition of all gauge numbers when ordering, is strongly recommended. This will prevent confusion, expense and loss of time.

All gauge numbers applying to orders for Aluminum, Brass, Bronze and Nickel Silver in the form of *Sheets, Wire and Rods* will be interpreted according to the *American or Brown & Sharpe's* standard unless otherwise ordered.

Monel and Pure Nickel Sheet and Rod are measured by the United States Standard Gauge.

Copper Sheet, Roll and Strip may be ordered according to *Brown & Sharpe's* or *Stubs' Gauge*, but it is well to specify the weight per square foot or the decimal equivalent.

Custom has made *Stubs' or Birmingham Gauge* the standard for ordering *Seamless Tubes* and, unless otherwise specified, gauge numbers as applied to the thickness of *Seamless Tubes* will be interpreted according to that standard.

### DIAMETER MEASUREMENTS

When ordering *Seamless Tubes*, state whether the diameter given is "*inside*" or "*outside*," otherwise it will be considered that *outside* measurements are required.



# The Quality Metals of Industry

## Index to All Sections

(GENERAL INDEX—PAGES 253 TO 259)

The contents of this Stock List are arranged in separate sections and show complete listings of all sizes carried in our Warehouse Stocks.

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<b>BRASS</b> INCLUDING Yellow Brass, "67" Brass, Red "85" Brass, Spring Brass, Low Brass, Rich Low Brass, Muntz Metal	65
<b>BRONZE</b> INCLUDING Nickel Silver, Ambrac, Commercial Bronze, Acid Dipped Bronze, Architectural Bronze, Phosphor Bronze, Tobin Bronze, Everdur	97
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<b>MONEL and NICKEL</b> INCLUDING Monel, "R" Monel, "K" Monel, "KR" Monel, "S" Monel, "H" Monel, Nickel, "Z" Nickel, "D" Nickel, Inconel	149
<b>SPECIAL MATERIALS</b> INCLUDING Welding and Brazing Materials Head and Eye Protection Equip- ment Ingot and Shot—For Foundry Use Castings Wirecloth Products Lukens Clad Steel Zinc Products Lead Products Range Boilers and Heaters Beer Dispensing Equip. Acces- sories Perforated Metals Metal Cleaners Miscellaneous Materials	197
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A section of the Accessories  
Department, New York Warehouse.



# ALUMINUM

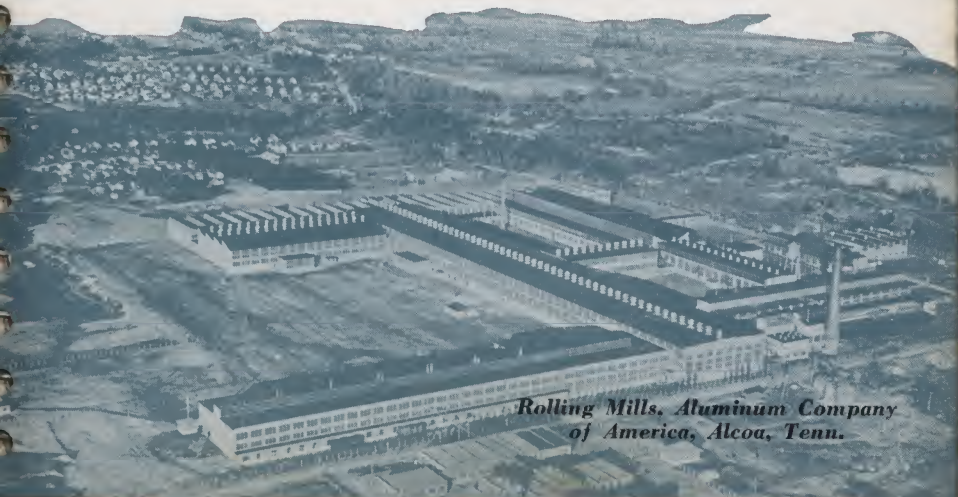
## SECTION



**Includes**

**ALUMINUM and  
ALUMINUM ALLOYS**

**In All Commercial Forms**



*Rolling Mills, Aluminum Company  
of America, Alcoa, Tenn.*

ALUM

BRAS



# ALUMINUM SECTION

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## CUTTING INFORMATION

Consistent with economical practice, we will cut stock sizes of Aluminum to your particular requirements within commercial limits and tolerances.

### Sawing

We are equipped to saw Aluminum Sheet and Plate up to 1" thick with a tolerance of  $1/32"$  plus or minus. The tolerance on the square is  $1/32"$  plus or minus in 3 feet or  $1/16"$  in 6 feet.

### Shearing

We are equipped to shear Aluminum Sheets up to 144" in length and  $1/4"$  in thickness with a tolerance of  $1/32"$  plus or minus. Any length sheet over 144" can also be sheared with a  $1/32"$  plus or minus tolerance, in thicknesses up to  $1/4"$ . On sheets over 144" however, the width of the sheet left after cutting must not exceed 18".

For precision work, sheets should be sheared where possible  $1/8"$  or  $1/4"$  larger than required and machined to size by the customer.

We cannot shear narrower than  $1/2"$  and do not recommend narrower than 1", except in lengths about 3 feet.

We can cut Aluminum Circles from 8" to 50" in diameter in thicknesses up to No. 11 B&S Gauge; Circles from 3" to 8" in diameter in thicknesses up to No. 14 B&S Gauge.

### Slitting

We are equipped to slit Aluminum in coils from  $1/4"$  to 18" in width, in  $1/64"$  increments with a tolerance of .003" plus or minus, in thicknesses up to No. 14 B&S Gauge. It can be wound on mandrels 4", 6" or 8" in diameter.

### Cutting and Threading

We are equipped to cut all sizes of Aluminum rod, tube and pipe. We can thread Aluminum rods from  $3/8"$  to  $1 1/4"$  in diameter and Aluminum pipe size tubing from  $1/8"$  to 3".



# ALUMINUM

## and ITS ALLOYS

The most striking quality of Aluminum, among its many useful properties, is the fact that it *weighs about one-third as much as other commonly-used metals*. This advantage is retained in its commercial alloys, some of which are actually lighter than pure aluminum.

### General Characteristics

Combined with the low specific gravity of aluminum are many other desirable characteristics which have made aluminum the fifth most commonly-used metal in point of tonnage and fourth in volume. Chief among these are: *high-resistance to the corrosive action* of the atmosphere and a great variety of chemical compounds; *high thermal and electrical conductivity*; *high reflectivity for radiant energy*, from the short wave lengths of ultra-violet to the longer waves of heat and electromagnetic or radio waves; and *ease of fabrication*. Aluminum can be welded by all commercial methods. Its compounds are colorless and are without harmful action upon the human system.

### Alloy Designation

Alcoa aluminum alloys, formed by combining commercially pure aluminum, as the principal constituent with small amounts of other metals, are available in various selections of hardness, strength and other properties. Alloys with substantially the same tensile strength may differ widely in yield strength, resistance to corrosion, thermal and electrical conductivity, ease of fabrication, and other characteristics. For this reason, designers should know the qualities of the various aluminum alloys. No two of the alloys have identical properties, and for each application some one alloy is best suited. It is also necessary to know the forms in which these materials are available and the sizes that are in commercial production.

# ALCOA ALUMINUM •

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Wrought alloys of Alcoa aluminum (indicated by the letter S following the alloy designation) falls into two classes:

1. *Alloys whose harder tempers are developed by strain hardening . . . (cold work). Comprising this group are Alloys 2S, 3S, 52S.*

2. *Alloys whose harder tempers are produced by heat treatment. Alloys comprising this group are 11S, 17S, 24S, 61S, 53S.*

A wide range of tensile properties is found in both classes. However, the highest combinations of strength and ductility appear in the heat-treated group.

The various tempers are indicated by the letter following the alloy designation, as follows: Letter H, Hard; Letter  $\frac{1}{2}$ H, Medium Hard; Letter O, Soft-Annealed; Letter T, Heat Treated; Letter W, Quenched or (normally) Aged.

## Basic Considerations in the Choice of an Alloy

THE CHOICE OF AN ALLOY naturally depends upon the qualities required for the particular application. Ease of forming by drawing, spinning, stamping, or other metal-working method, the service which the part is to perform—all must be considered. For some uses, greater strength and stiffness of one alloy makes it the choice over another despite slightly greater fabricating difficulties. The final choice should be based on the trial of samples on the tools which are to be used in commercial production. The following paragraphs give some basic considerations to be kept in mind when choosing an Alcoa Aluminum Alloy.

### STRAIN-HARDENED ALLOYS

#### 2S or 3S

Is commonly specified where the service the part is to perform does not require high strength. In any given temper, 2S is slightly more easily formed than 3S. However, the greater strength and stiffness of 3S often makes it the choice, even though it entails some minor change in design or tools to permit economical manufacture. Both 2S and 3S are used in the manufacture of drawn cooking utensils, bottle and glass closures, cosmetic containers, and a variety of similar articles. Depending upon the depth of the draw, the temper of 2S or 3S sheet may vary from "soft" to three-quarter hard, the half-hard temper being frequently specified.

#### 52S

Is stronger than 3S. In the quarter-hard temper (52S- $\frac{1}{4}$ H) has good forming qualities and yet its mechanical properties



# ● ALCOA ALUMINUM

---

are appreciably higher than those of 3S in the hard temper (3S-H). Its excellent resistance to corrosion and its high endurance limit, have caused the demand for this newest of the aluminum alloys to exceed that for many of the older alloys.

In its harder temper, 52S has a yield strength comparable with that of 17S-T, the most widely used of the heat-treatable alloys, although its tensile strength and elongation are not so high.

## HEAT-TREATABLE ALLOYS

The heat-treatable alloys present a wide range of properties to meet the varied requirements of the structural applications of aluminum products.

### 17S

The oldest of these alloys, has a tensile strength substantially the same as that of mild steel. Its good fabricating qualities, which are reflected in the wide range of forms in which it is available, make it the most widely used of the high strength alloys.

### 61S

One of the latest alloys is outstanding in that it possesses a superior combination of excellent forming characteristics, especially in the heat treated tempers, together with good strength, particularly yield strength, and good resistance to corrosion. It can be welded by practically all methods, with the advantages that the joint strengths are somewhat higher than in 53-S alloy. Hot forming of the material in the heat treated state can be carried out at temperatures up to 400° F. without harmful effect on either mechanical or corrosion resistance properties, provided the heating period does not run over a half-hour stage. At these temperatures the alloy is appreciably more easily formed than at room temperatures.

### 24S

Is a material having even higher mechanical properties than those of 17S. The tensile and yield strengths of 24S-T are approximately 8000 pounds per square inch higher than those of 17S-T; in the case of yield strength an increase of approximately 25 per cent. This improvement is of particular interest since it makes possible the use of Alclad 24S sheet (See Alclad Products) with higher design factors than are possible with the use of bare 17S sheet. This alloy is finding increased use in aircraft construction and in other structures where maximum strength combined with minimum weight is required.

# ALCOA ALUMINUM •

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Strain-hardened after heat treatment this alloy . . . 24S-RT . . . has the highest strength of any of the commercial wrought aluminum alloys.

## 53S

Originally developed for architectural use, has found more general application because of its combination of excellent qualities. It is highly resistant to the corrosive action of the atmosphere from the standpoint of its retention of both surface finish and mechanical properties. Since the alloy responds to heat treatment, extruded sections have higher mechanical properties than those of 3S. For use under severely corrosive atmospheric conditions 53S and 52S are at least as resistant as 2S and 3S and have the advantage of higher mechanical properties. If still higher strengths are required Alclad 17S or Alclad 24S are available in the form of sheet and plate.

## 11S

Has been developed to provide a material having properties comparable with those of 17S-T, but with free-cutting machining qualities to make it more suitable for use in high-speed automatic screw machines. Experience has demonstrated that in 11S-T3 this result has been fully realized. Its yield strength is about one-third higher, although its ultimate strength is somewhat lower than that of 17S-T.

## ALCLAD PRODUCTS

"Alclad" is the registered trade-mark used by Aluminum Company of America to identify alloy products of exceptional resistance to corrosion in which this property is imparted by means of a surface layer of aluminum of high purity or a special aluminum alloy, alloyed and integral with the core. The thickness of the surface metal is so chosen as to retain, in the resultant product, the maximum physical properties consistent with adequate protection of the alloy core. In the commonly-used thicknesses of Alclad 17S-T and Alclad 24S-T sheet, the tensile and yield strengths are approximately ten per cent lower than the values for the uncoated alloys. The coating not only protects the alloy which it covers, but by electrolytic action, prevents attack on the sheared edges of sheet or other sections of the base alloy which may be exposed by scratches or abrasions. Alclad products are extensively used in the aircraft industry. Detailed information sent on request.

# ● ALCOA ALUMINUM

## STANDARD PRODUCTS—WROUGHT ALLOYS

Forms Commonly Available

Aluminum Co. Alloy Number	Sheet and Plate	Wire	Rod and Bar	Rolled Shapes	Extruded Shapes	Tube and Pipe	Rivets	Screw Mach. Products	Forgings	"Alclad" Sheet	Heat-Treatable Alloy
2S	●	●	●	..	●	●	●	..	..	..	..
3S	●	●	●	..	●	●	●	..	..	..	..
11S	..	●	●	..	..	..	..	●	●	..	●
17S	●	●	●	●	●	●	●	●	●	●	●
A17S	..	..	..	..	..	..	●	..	..	..	●
24S	●	●	●	..	●	●	..	●	..	●	●
52S	●	●	●	..	..	●	..	..	..	..	..
53S	●	●	●	●	●	●	●	●	●	..	●
61S	●	..	..	..	●	●	..	..	..	..	..

### CHIEF CHARACTERISTICS

2S	Good forming qualities, weldable, corrosion-resistant.
3S	Workability, weldability and resistance to corrosion.
11S	Good machinability, "free" cutting, good mechanical properties.
17S	Excellent mechanical properties. (Duralumin type alloy.)
A17S	Fair strength and cold-working properties.
24S	High strength, sensitive to heat-treatment.
52S	Highest strength of non-heat-treatable aluminum alloys, good workability and resistance to corrosion.
53S	Fair mechanical properties, excellent resistance to salt-water corrosion.
61S	Good strength and workability.

### TYPICAL APPLICATIONS

Sheet metal work, chemical equipment, cooking utensils.
Sheet metal work, decorative trim, gasoline tanks for aircraft.
Screw-machine products.
Structural applications transportation, construction fields.
Rivets.
Widely used in aircraft construction.
High-strength sheet metal work, marine and transportation applications.
Structures subject to severe corrosive conditions; naval, architectural and industrial applications.
General-purpose casting alloy.



# ALCOA ALUMINUM •

## TYPICAL MECHANICAL PROPERTIES OF WROUGHT ALUMINUM ALLOYS

Alloy and Temper	Yield Strength (Set= 0.2%), Lb./ Sq. In.	Ultimate Strength, Lb./ Sq. In.	Elongation, Per Cent in 2 In.		Brinell, 500-kg. Load 10-mm. Ball	Shearing Strength, Lb./ Sq. In.	Endur- ance Limit, Lb./ Sq. In.
			Sheet Specimen ( $\frac{1}{8}$ Inch Thick)	Round Specimen ( $\frac{1}{2}$ Inch Diam.)			
2S-O	5,000	13,000	35	45	23	9,500	5,000
2S- $\frac{1}{2}$ H	14,000	17,000	9	20	32	11,000	7,000
2S-H	21,000	24,000	5	15	44	13,000	8,500
3S-O	6,000	16,000	30	40	28	11,000	7,000
3S- $\frac{1}{2}$ H	18,000	21,000	8	16	40	14,000	9,000
3S-H	25,000	29,000	4	10	55	16,000	10,000
11S-T3 (2)	42,000	49,000	..	14	95	30,000	12,500
17S-O	10,000	26,000	20	22	45	18,000	11,000
17S-T	40,000	62,000	20	22	100	36,000	15,000
Alclad 17S-T	33,000	56,000	18	..	..	32,000	.....
A17S-T	24,000	43,000	..	27	70	26,000	13,500
24S-O	10,000	26,000	20	22	42	18,000	12,000
24S-T	45,000	68,000	19	22	105	41,000	18,000
Alclad 24S-T	41,000	62,000	18	..	..	40,000	.....
52S-O	14,000	29,000	25	30	45	18,000	17,000
52S- $\frac{1}{4}$ H	26,000	34,000	12	18	62	20,000	18,000
52S- $\frac{1}{2}$ H	29,000	37,000	10	14	67	21,000	19,000
52S-H	36,000	41,000	7	8	85	24,000	20,500
53S-O	7,000	16,000	25	35	26	11,000	7,500
53S-T	33,000	39,000	14	20	80	24,000	11,000
61S-W	21,000	35,000	22	..	65	24,000	12,500
61S-T	39,000	45,000	12	..	95	30,000	12,500

<sup>2</sup> For sizes up to  $1\frac{1}{2}$  inches. For larger sizes values are lower.

## NOMINAL COMPOSITIONS OF WROUGHT ALUMINUM ALLOYS<sup>1</sup> CARRIED IN STOCK

Per Cent of Alloying Elements—Aluminum and Normal Impurities  
Constitute Remainder

Alloy	Copper	Silicon	Man- gane- se	Mag- ne- sium	Chromium	Lead	Bismuth
2S*	...	...	...	...	....	...	...
3S	...	...	1.2	...	....	...	...
11S	5.5	...	...	...	....	0.5	0.5
17S	4.0	...	0.5	0.5	....	...	...
A17S	2.5	...	...	0.3	....	...	...
24S	4.5	...	0.6	1.5	....	...	...
52S	...	...	...	2.5	0.25	...	...
53S	...	0.7	...	1.3	0.25	...	...
61S	0.25	0.6	...	1.0	0.25	...	...

<sup>1</sup> Heat-treatment symbols have been omitted since composition does not vary for different heat-treatment practices.

\* (2S) Commercially pure aluminum with one per cent of impurities is considered a "natural alloy."

STOCK SHIPMENTS FOR ECONOMY

# • ALCOA ALUMINUM

## APPROXIMATE RADII FOR 90° COLD BEND ALUMINUM AND ALUMINUM ALLOY SHEETS

Minimum permissible radius varies with nature of forming operation, type of forming equipment and design and condition of tools. Minimum working radius for given material or hardest alloy and temper for a given radius can be ascertained only by actual trial under contemplated conditions of fabrication.

Alloy and Temper	Bend Classification <sup>2</sup>	Alloy and Temper	Bend Classification <sup>2</sup>
2 S-O	A	24 S-O <sup>(3)</sup>	B
2 S-1/4H	B	24 S-T <sup>(3)(4)</sup>	J
2 S-1/2H	B	24 S-RT <sup>(3)</sup>	K
2 S-3/4H	D	52 S-O	A
2 S-H	F	52 S-1/4H	C
3 S-O	A	52 S-1/2H	D
3 S-1/4H	B	52 S-3/4H	F
3 S-1/2H	C	52 S-H	G
3 S-3/4H	E	53 S-O	A
3 S-H	G	53 S-W	F
17 S-O <sup>(3)</sup>	B	53 S-T	G
17 S-T <sup>(3)(4)</sup>	H	61 S-O	B
		61 S-W	E
		61 S-T	F

<sup>2</sup> For corresponding bend radii see table below.

<sup>3</sup> Alclad 17S and Alclad 24S can be bent over slightly smaller radii than the corresponding tempers of the uncoated alloy.

<sup>4</sup> Immediately after quenching, these alloys can be formed over appreciably smaller radii.

## RADII REQUIRED FOR 90° BEND IN TERMS OF THICKNESS †

Approximate Thickness

	B&S Gauge Decimal Fraction	26 0.016 1/64	20 0.032 1/32	14 0.064 1/16	8 0.128 1/8	5 0.182 3/16	2 0.258 1/4
Bend Classification	A	0	0	0	0	0	0
	B	0	0	0	0	0-1t	0-1t
	C	0	0	0	0-1t	0-1t	1/2t-1 1/2t
	D	0	0	0-1t	1/2t-1 1/2t	1t-2t	1 1/2t-3t
	E	0-1t	0-1t	1/2t-1 1/2t	1t-2t	1 1/2t-3t	2t-4t
	F	0-1t	1/2t-1 1/2t	1t-2t	1 1/2t-3t	2t-4t	2t-4t
	G	1/2t-1 1/2t	1t-2t	1 1/2t-3t	2t-4t	3t-5t	4t-6t
	H	1t-2t	1 1/2t-3t	2t-4t	3t-5t	4t-6t	4t-6t
	J	1 1/2t-3t	2t-4t	3t-5t	4t-6t	4t-6t	5t-7t
	K	2t-4t	3t-5t	3t-5t	4t-6t	5t-7t	6t-10t



# ALCOA ALUMINUM •

## 2 S HARD ALUMINUM SHEETS

				High Mill Finish					
Thickness	B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness	B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 32 (.008")		24"	72"	1.36 lbs.	No. 18 (.040")		24"	72"	6.82 lbs.
No. 30 (.010")		24"	72"	1.70 lbs.	No. 18 (.040")		36"	96"	13.63 lbs.
No. 28 (.012")		24"	72"	2.14 lbs.	No. 16 (.050")		24"	72"	8.59 lbs.
No. 26 (.016")		12"	72"	1.35 lbs.	No. 16 (.050")		36"	96"	17.18 lbs.
No. 26 (.016")		24"	72"	2.70 lbs.	No. 14 (.064")		24"	72"	10.84 lbs.
No. 24 (.020")		24"	72"	3.44 lbs.	No. 14 (.064")		36"	96"	21.67 lbs.
No. 24 (.020")		36"	96"	6.88 lbs.	No. 12 (.081")		24"	72"	13.68 lbs.
No. 22 (.025")		12"	72"	2.14 lbs.	No. 11 (.091")		24"	72"	15.36 lbs.
No. 22 (.025")		24"	72"	4.28 lbs.	No. 11 (.091")		36"x120"		38.40 lbs.
No. 20 (.032")		12"	72"	2.70 lbs.	No. 10 (.102")		24"	72"	17.28 lbs.
No. 20 (.032")		24"	72"	5.40 lbs.	1/8" (.125")		24"	72"	21.92 lbs.
No. 20 (.032")		30"	96"	9.00 lbs.	1/8" (.125")		36"	96"	43.44 lbs.
No. 20 (.032")		36"	96"	10.80 lbs.	1/8" (.125")		48"	96"	57.60 lbs.

## 2 S HARD ALUMINUM LIGHTING SHEETS

				Specular Finish					
Thickness	B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness	B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 24 (.020")		24"	72"	3.44 lbs.	No. 20 (.032")		24"	72"	5.40 lbs.

## 2 S HALF HARD ALUMINUM SHEETS

				High Mill Finish					
Thickness	B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness	B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 30 (.010")		24"	72"	1.70 lbs.	No. 20 (.032")		36"	96"	10.80 lbs.
No. 28 (.012")		24"	72"	2.14 lbs.	No. 20 (.032")		48"	96"	14.40 lbs.
No. 26 (.016")		24"	72"	2.70 lbs.	No. 20 (.032")		36"x120"		13.50 lbs.
No. 24 (.020")		24"	72"	3.44 lbs.	No. 20 (.032")		48"x120"		18.00 lbs.
No. 24 (.020")		36"	96"	6.79 lbs.	No. 20 (.032")		36"x144"		16.20 lbs.
No. 24 (.020")		36"x120"		8.60 lbs.	No. 20 (.032")		48"x144"		21.60 lbs.
No. 24 (.020")		48"x120"		11.32 lbs.	No. 20 (.032")		60"x144"		27.00 lbs.
No. 24 (.020")		60"x120"		14.35 lbs.	No. 18 (.040")		24"	72"	6.82 lbs.
No. 22 (.025")		24"	72"	4.28 lbs.	No. 18 (.040")		30"	96"	11.36 lbs.
No. 22 (.025")		30"	96"	7.14 lbs.	No. 18 (.040")		36"	96"	13.73 lbs.
No. 22 (.025")		36"	96"	8.57 lbs.	No. 18 (.040")		48"	96"	18.24 lbs.
No. 22 (.025")		36"x120"		10.21 lbs.	No. 18 (.040")		36"x120"		17.04 lbs.
No. 22 (.025")		48"x120"		14.28 lbs.	No. 18 (.040")		48"x120"		22.72 lbs.
No. 20 (.032")		24"	72"	5.40 lbs.	No. 18 (.040")		36"x144"		20.45 lbs.
No. 20 (.032")		30"	96"	9.00 lbs.	No. 18 (.040")		48"x144"		27.26 lbs.

For weight per square foot see pages 221 through 224.

(Continued on next page)



# • ALCOA ALUMINUM



## 2 S HALF HARD ALUMINUM SHEETS (Cont.)

High Mill Finish (Cont.)

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 18 (.040")	60"x144"		34.08 lbs.	No. 11 (.091")	36"x120"		38.40 lbs.
No. 16 (.050")	24"x 72"		8.59 lbs.	No. 11 (.091")	60"x120"		64.00 lbs.
No. 16 (.050")	30"x 96"		14.32 lbs.	No. 11 (.091")	48"x144"		61.44 lbs.
No. 16 (.050")	36"x 96"		17.18 lbs.	No. 10 (.102")	24"x 72"		17.24 lbs.
No. 16 (.050")	48"x 96"		22.91 lbs.	No. 10 (.102")	36"x 96"		34.48 lbs.
No. 16 (.050")	36"x120"		21.48 lbs.	No. 10 (.102")	48"x144"		68.96 lbs.
No. 16 (.050")	48"x120"		28.64 lbs.	1/8" (.125")	24"x 72"		21.72 lbs.
No. 16 (.050")	60"x120"		35.80 lbs.	1/8" (.125")	30"x 96"		36.20 lbs.
No. 16 (.050")	36"x144"		25.77 lbs.	1/8" (.125")	36"x 96"		43.44 lbs.
No. 16 (.050")	48"x144"		34.37 lbs.	1/8" (.125")	48"x 96"		57.60 lbs.
No. 16 (.050")	60"x144"		42.96 lbs.	1/8" (.125")	36"x120"		54.30 lbs.
No. 14 (.064")	12"x 72"		5.42 lbs.	1/8" (.125")	42"x120"		63.35 lbs.
No. 14 (.064")	24"x 72"		10.84 lbs.	1/8" (.125")	48"x144"		86.88 lbs.
No. 14 (.064")	30"x 96"		18.06 lbs.	3/16" (.187")	24"x 72"		31.80 lbs.
No. 14 (.064")	36"x 96"		21.67 lbs.	3/16" (.187")	30"x 96"		53.00 lbs.
No. 14 (.064")	48"x 96"		28.80 lbs.	3/16" (.187")	36"x 96"		63.60 lbs.
No. 14 (.064")	36"x120"		27.09 lbs.	3/16" (.187")	36"x120"		79.50 lbs.
No. 14 (.064")	42"x120"		31.60 lbs.	3/16" (.187")	48"x 96"		84.80 lbs.
No. 14 (.064")	48"x120"		36.12 lbs.	3/16" (.187")	48"x144"		127.20 lbs.
No. 14 (.064")	60"x120"		45.84 lbs.	1/4" (.250")	24"x 72"		42.24 lbs.
No. 14 (.064")	36"x144"		32.55 lbs.	1/4" (.250")	30"x 96"		70.40 lbs.
No. 14 (.064")	48"x144"		43.34 lbs.	1/4" (.250")	36"x 96"		84.48 lbs.
No. 14 (.064")	60"x144"		55.00 lbs.	1/4" (.250")	48"x120"		142.80 lbs.
No. 12 (.081")	24"x 72"		13.68 lbs.	1/4" (.250")	48"x144"		168.96 lbs.
No. 12 (.081")	30"x 96"		22.80 lbs.	5/16" (.312")	24"x 72"		52.82 lbs.
No. 12 (.081")	36"x 96"		27.36 lbs.	5/16" (.312")	36"x 96"		105.64 lbs.
No. 12 (.081")	48"x 96"		36.48 lbs.	3/8" (.375")	24"x 36"		31.45 lbs.
No. 12 (.081")	36"x120"		34.20 lbs.	3/8" (.375")	24"x 72"		62.91 lbs.
No. 12 (.081")	48"x144"		54.72 lbs.	3/8" (.375")	36"x 96"		126.77 lbs.
No. 11 (.091")	24"x 72"		15.36 lbs.	1/2" (.500")	24"x 72"		84.52 lbs.
No. 11 (.091")	36"x 96"		30.72 lbs.	1/2" (.500")	36"x 96"		168.96 lbs.
No. 11 (.091")	48"x 96"		40.96 lbs.				

## 2 S HALF HARD ALUMINUM FLATTENED STRIP SHEETS

Type A Standard—One Side Bright

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 30 (.010")	24"x 72"		1.70 lbs.	No. 24 (.020")	24"x 72"		3.44 lbs.
No. 28 (.012")	24"x 72"		2.14 lbs.	No. 22 (.025")	24"x 72"		4.28 lbs.
No. 26 (.016")	24"x 72"		2.70 lbs.	No. 20 (.032")	24"x 72"		5.40 lbs.

For weight per square foot see pages 221 through 224.



# ALCOA ALUMINUM •

## 2 S HALF HARD ALUMINUM SHEETS

Specially Selected for Alumiliting  
One Side Inspection

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 24 (.020")	24" x	72"	3.44 lbs.
No. 24 (.020")	36" x	96"	6.79 lbs.
No. 24 (.020")	36" x	120"	8.60 lbs.
No. 22 (.025")	24" x	72"	4.28 lbs.
No. 22 (.025")	36" x	96"	8.57 lbs.
No. 22 (.025")	36" x	120"	10.21 lbs.
No. 20 (.032")	24" x	72"	5.40 lbs.
No. 20 (.032")	36" x	96"	10.80 lbs.
No. 20 (.032")	48" x	144"	21.60 lbs.
No. 18 (.040")	24" x	72"	6.82 lbs.
No. 18 (.040")	36" x	96"	13.73 lbs.
No. 18 (.040")	48" x	144"	27.26 lbs.
No. 16 (.050")	24" x	72"	8.59 lbs.
No. 16 (.050")	36" x	96"	17.18 lbs.
No. 16 (.050")	48" x	144"	34.37 lbs.
No. 14 (.064")	24" x	72"	5.42 lbs.
No. 14 (.064")	36" x	96"	21.67 lbs.
No. 14 (.064")	48" x	144"	43.34 lbs.
No. 12 (.081")	24" x	72"	13.68 lbs.
No. 12 (.081")	36" x	96"	27.36 lbs.
No. 12 (.081")	36" x	144"	41.04 lbs.
No. 12 (.081")	48" x	144"	54.72 lbs.
No. 11 (.091")	24" x	72"	15.36 lbs.
No. 11 (.091")	36" x	96"	30.72 lbs.
No. 11 (.091")	36" x	144"	46.08 lbs.
No. 11 (.091")	48" x	144"	61.44 lbs.
No. 10 (.101")	24" x	72"	17.24 lbs.
No. 10 (.101")	36" x	96"	34.48 lbs.
1/8" (.125")	24" x	72"	21.72 lbs.
1/8" (.125")	36" x	96"	43.44 lbs.
1/8" (.125")	36" x	120"	54.30 lbs.
3/16" (.187")	24" x	72"	31.80 lbs.
3/16" (.187")	36" x	96"	63.60 lbs.
1/4" (.249")	24" x	72"	42.24 lbs.
1/4" (.249")	36" x	96"	84.48 lbs.
1/4" (.249")	36" x	120"	105.60 lbs.

For weight per square foot see pages 221 through 224.



# ● ALCOA ALUMINUM



## 2 S SOFT ALUMINUM SHEETS

High Mill Finish

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 32 (.008")	24"	x 72"	1.36 lbs.	No. 16 (.050")	48"x144"		34.36 lbs.
No. 30 (.010")	24"	x 72"	1.70 lbs.	No. 14 (.064")	24"x 72"		10.84 lbs.
No. 28 (.012")	24"x 72"		2.14 lbs.	No. 14 (.064")	36"x 96"		21.67 lbs.
No. 26 (.016")	24"x 72"		2.70 lbs.	No. 14 (.064")	48"x144"		43.34 lbs.
No. 24 (.020")	24"x 72"		3.44 lbs.	No. 12 (.081")	24"x 72"		13.68 lbs.
No. 22 (.025")	12"x 72"		2.14 lbs.	No. 12 (.081")	36"x 96"		27.36 lbs.
No. 22 (.025")	24"x 72"		4.28 lbs.	No. 12 (.081")	48"x 96"		36.48 lbs.
No. 20 (.032")	24"x 72"		5.40 lbs.	No. 11 (.091")	24"x 72"		15.36 lbs.
No. 20 (.032")	36"x 96"		10.80 lbs.	No. 11 (.091")	36"x 96"		30.72 lbs.
No. 18 (.040")	24"x 72"		6.82 lbs.	No. 11 (.091")	48"x 96"		40.96 lbs.
No. 18 (.040")	36"x 96"		13.73 lbs.	No. 11 (.091")	36"x120"		38.40 lbs.
No. 18 (.040")	48"x144"		27.26 lbs.	No. 10 (.102")	24"x 72"		17.24 lbs.
No. 16 (.050")	24"x 72"		8.59 lbs.	No. 10 (.102")	36"x 96"		34.48 lbs.
No. 16 (.050")	36"x 96"		17.18 lbs.	1/8" (.125")	24"x 72"		21.92 lbs.

## 2 S SOFT ALUMINUM STRIP SHEET

IN COILS

About 25 to 50 Pounds Each

Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot	Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot
No. 34 (.006")	12"	.089 lbs.	No. 20 (.032")	14"	.525 lbs.
No. 32 (.008")	12"	.113 lbs.	No. 20 (.032")	15"	.563 lbs.
No. 30 (.010")	12"	.141 lbs.	No. 20 (.032")	16"	.600 lbs.
No. 28 (.012")	12"	.178 lbs.	No. 20 (.032")	18"	.675 lbs.
No. 28 (.012")	18"	.267 lbs.	No. 20 (.032")	20"	.750 lbs.
No. 26 (.016")	12"	.225 lbs.	No. 20 (.032")	24"	.900 lbs.
No. 26 (.016")	14"	.264 lbs.	No. 18 (.040")	12"	.568 lbs.
No. 26 (.016")	16"	.303 lbs.	No. 18 (.040")	14"	.663 lbs.
No. 26 (.016")	18"	.337 lbs.	No. 18 (.040")	16"	.757 lbs.
No. 24 (.020")	12"	.283 lbs.	No. 18 (.040")	18"	.852 lbs.
No. 24 (.020")	14"	.330 lbs.	No. 18 (.040")	20"	.947 lbs.
No. 24 (.020")	16"	.377 lbs.	No. 18 (.040")	24"	1.136 lbs.
No. 24 (.020")	18"	.425 lbs.	No. 16 (.050")	12"	.716 lbs.
No. 24 (.020")	20"	.472 lbs.	No. 16 (.050")	16"	.955 lbs.
No. 22 (.025")	12"	.357 lbs.	No. 16 (.050")	18"	1.074 lbs.
No. 22 (.025")	14"	.416 lbs.	No. 16 (.050")	24"	1.532 lbs.
No. 22 (.025")	16"	.466 lbs.	No. 14 (.064")	12"	.903 lbs.
No. 22 (.025")	18"	.535 lbs.	No. 14 (.064")	14"	1.053 lbs.
No. 22 (.025")	20"	.595 lbs.	No. 14 (.064")	16"	1.204 lbs.
No. 20 (.032")	10"	.375 lbs.	No. 14 (.064")	18"	1.354 lbs.
No. 20 (.032")	12"	.450 lbs.			

For weight per square foot see pages 226 and 227.





# ALCOA ALUMINUM •

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## 2 S SOFT ALUMINUM STRIP SHEET CIRCLES

Thickness B. & S. Gauge	Dia.	Appr. Wt. Per Circle	Thickness B. & S. Gauge	Dia.	Appr. Wt. Per Circle
No. 24 (.020")	8"	.0988 lbs.	No. 18 (.040")	11½"	.4094 lbs.
No. 24 (.020")	10"	.1544 lbs.	No. 18 (.040")	12"	.4460 lbs.
No. 22 (.025")	10½"	.2147 lbs.	No. 18 (.040")	12½"	.4836 lbs.
No. 22 (.025")	14"	.381 lbs.	No. 18 (.040")	13"	.5230 lbs.
No. 22 (.025")	16"	.498 lbs.	No. 18 (.040")	14"	.6068 lbs.
No. 20 (.032")	5"	.0614 lbs.	No. 18 (.040")	14½"	.6506 lbs.
No. 20 (.032")	6"	.0884 lbs.	No. 18 (.040")	15"	.6966 lbs.
No. 20 (.032")	6½"	.1037 lbs.	No. 18 (.040")	15½"	.7437 lbs.
No. 20 (.032")	7"	.1203 lbs.	No. 18 (.040")	16"	.7925 lbs.
No. 20 (.032")	7½"	.1381 lbs.	No. 18 (.040")	17"	.8947 lbs.
No. 20 (.032")	8½"	.1774 lbs.	No. 18 (.040")	17½"	.9481 lbs.
No. 20 (.032")	9½"	.2216 lbs.	No. 18 (.040")	18"	1.003 lbs.
No. 20 (.032")	10½"	.2707 lbs.	No. 18 (.040")	20"	1.238 lbs.
No. 20 (.032")	11"	.2971 lbs.	No. 18 (.040")	24"	1.783 lbs.
No. 20 (.032")	11½"	.3247 lbs.	No. 16 (.050")	11"	.4724 lbs.
No. 20 (.032")	12"	.3535 lbs.	No. 16 (.050")	12"	.5622 lbs.
No. 20 (.032")	12½"	.3836 lbs.	No. 16 (.050")	13½"	.700 lbs.
No. 20 (.032")	13"	.4150 lbs.	No. 16 (.050")	14"	.7652 lbs.
No. 20 (.032")	13½"	.4474 lbs.	No. 16 (.050")	15"	.8784 lbs.
No. 20 (.032")	14"	.4812 lbs.	No. 16 (.050")	16"	.9995 lbs.
No. 20 (.032")	14½"	.5159 lbs.	No. 16 (.050")	17"	1.128 lbs.
No. 20 (.032")	16"	.6285 lbs.	No. 16 (.050")	18"	1.265 lbs.
No. 20 (.032")	18"	.7954 lbs.	No. 16 (.050")	19½"	1.485 lbs.
No. 20 (.032")	19"	.8862 lbs.	No. 16 (.050")	20"	1.562 lbs.
No. 20 (.032")	19½"	.9335 lbs.	No. 16 (.050")	21"	1.722 lbs.
No. 20 (.032")	20"	.9820 lbs.	No. 16 (.050")	22"	1.890 lbs.
No. 20 (.032")	21"	1.083 lbs.	No. 16 (.050")	24"	2.249 lbs.
No. 20 (.032")	22"	1.188 lbs.	No. 14 (.064")	8"	.315 lbs.
No. 18 (.040")	5"	.0774 lbs.	No. 14 (.064")	10"	.492 lbs.
No. 18 (.040")	5½"	.0937 lbs.	No. 14 (.064")	12"	.708 lbs.
No. 18 (.040")	6"	.1114 lbs.	No. 14 (.064")	13"	.832 lbs.
No. 18 (.040")	6½"	.1308 lbs.	No. 14 (.064")	14"	.964 lbs.
No. 18 (.040")	7"	.1517 lbs.	No. 14 (.064")	15"	1.108 lbs.
No. 18 (.040")	8"	.1981 lbs.	No. 14 (.064")	16"	1.360 lbs.
No. 18 (.040")	9"	.2508 lbs.	No. 14 (.064")	17"	1.423 lbs.
No. 18 (.040")	9½"	.2794 lbs.	No. 14 (.064")	18"	1.595 lbs.
No. 18 (.040")	10"	.3096 lbs.	No. 12 (.081")	6"	.223 lbs.
No. 18 (.040")	10½"	.3413 lbs.	No. 12 (.081")	6½"	.262 lbs.
No. 18 (.040")	11"	.3746 lbs.	No. 12 (.081")	7"	.304 lbs.

(Continued on next page)

# ● ALCOA ALUMINUM



## 2 S SOFT ALUMINUM STRIP SHEET CIRCLES (Cont.)

Thickness B. & S. Gauge	Dia.	Appr. Wt. Per Circle	Thickness B. & S. Gauge	Dia.	Appr. Wt. Per Circle
No. 12 (.081")	8"	.397 lbs.	No. 11 (.091")	7"	.341 lbs.
No. 12 (.081")	9"	.502 lbs.	No. 11 (.091")	8"	.446 lbs.
No. 12 (.081")	10"	.620 lbs.	No. 11 (.091")	9"	.564 lbs.
No. 12 (.081")	11"	.751 lbs.	No. 11 (.091")	10"	.697 lbs.
No. 12 (.081")	12"	.893 lbs.	No. 11 (.091")	11"	.843 lbs.
No. 12 (.081")	13"	1.049 lbs.	No. 11 (.091")	12"	.995 lbs.
No. 12 (.081")	14"	1.217 lbs.	No. 11 (.091")	13"	1.178 lbs.
No. 12 (.081")	15"	1.397 lbs.	No. 11 (.091")	14"	1.366 lbs.
No. 12 (.081")	16"	1.589 lbs.	No. 11 (.091")	15"	1.568 lbs.
No. 12 (.081")	18"	2.011 lbs.	No. 11 (.091")	16"	1.785 lbs.
No. 11 (.091")	6"	.251 lbs.	No. 11 (.091")	18"	2.259 lbs.

## NO. 1 NAME PLATE ALUMINUM CIRCLES

In 100 Lb. Boxes

Thickness B. & S. Gauge	Dia.	Appr. Wt. Per Circle	Thickness B. & S. Gauge	Dia.	Appr. Wt. Per Circle
No. 20 (.032")	8"	.1571 lbs.	No. 20 (.032")	12"	.3535 lbs.
No. 20 (.032")	10"	.2455 lbs.	No. 20 (.032")	16"	.6285 lbs.

## 3 S HALF HARD ALUMINUM GRAY PLATE

Recommended for Painting

Dull Gray Surface

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 20 (.032")	36"	96"	9.00 lbs.	No. 18 (.040")	72"	144"	41.18 lbs.
No. 20 (.032")	48"	144"	21.60 lbs.	No. 18 (.040")	60"	168"	40.04 lbs.
No. 18 (.040")	36"	96"	13.73 lbs.	No. 18 (.040")	72"	168"	48.05 lbs.
No. 18 (.040")	36"	120"	17.04 lbs.	No. 16 (.050")	36"	96"	17.18 lbs.
No. 18 (.040")	48"	120"	22.72 lbs.	No. 16 (.050")	36"	120"	21.48 lbs.
No. 18 (.040")	60"	120"	28.60 lbs.	No. 16 (.050")	48"	120"	28.64 lbs.
No. 18 (.040")	33"	144"	20.45 lbs.	No. 16 (.050")	60"	120"	35.80 lbs.
No. 18 (.040")	48"	144"	27.26 lbs.	No. 16 (.050")	36"	144"	25.77 lbs.
No. 18 (.040")	60"	144"	38.08 lbs.	No. 16 (.050")	48"	144"	34.37 lbs.

(Continued on next page)





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## 3 S HALF HARD ALUMINUM GRAY PLATE (Cont.)

Recommended for Painting  
Dull Gray Surface

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 16 (.050")	60"	x144"	42.96 lbs.	No. 14 (.064")	78"	x168"	82.17 lbs.
No. 16 (.050")	72"	x144"	51.55 lbs.	No. 14 (.064")	78"	x192"	93.91 lbs.
No. 16 (.050")	60"	x168"	50.12 lbs.	No. 12 (.081")	36"x	96"	27.36 lbs.
No. 16 (.050")	72"	x168"	60.14 lbs.	No. 12 (.081")	48"x	120"	45.60 lbs.
No. 16 (.050")	78"	x168"	58.00 lbs.	No. 12 (.081")	48"x	144"	54.72 lbs.
No. 16 (.050")	72"	x192"	68.74 lbs.	No. 12 (.081")	60"x	144"	68.40 lbs.
No. 16 (.050")	78"	x192"	74.46 lbs.	No. 12 (.081")	72"x	192"	109.44 lbs.
No. 14 (.064")	36"x	96"	21.67 lbs.	No. 11 (.091")	36"x	96"	30.72 lbs.
No. 14 (.064")	48"x	96"	28.50 lbs.	No. 11 (.091")	60"x	144"	76.80 lbs.
No. 14 (.064")	36"x	120"	27.09 lbs.	No. 10 (.102")	36"x	96"	34.48 lbs.
No. 14 (.064")	48"x	120"	36.12 lbs.	No. 10 (.102")	60"x	144"	84.00 lbs.
No. 14 (.064")	60"x	120"	45.84 lbs.	No. 10 (.102")	72"x	192"	103.44 lbs.
No. 14 (.064")	36"x	144"	32.55 lbs.	1/8" (.125")	36"x	96"	43.44 lbs.
No. 14 (.064")	48"x	144"	43.34 lbs.	1/8" (.125")	48"x	120"	72.40 lbs.
No. 14 (.064")	60"x	144"	55.00 lbs.	1/8" (.125")	36"x	144"	65.16 lbs.
No. 14 (.064")	72"x	144"	65.02 lbs.	1/8" (.125")	48"x	144"	86.88 lbs.
No. 14 (.064")	78"x	144"	70.43 lbs.	1/8" (.125")	60"x	144"	108.60 lbs.
No. 14 (.064")	60"x	168"	63.21 lbs.	1/8" (.125")	60"x	168"	126.00 lbs.
No. 14 (.064")	72"x	168"	75.85 lbs.	1/8" (.125")	72"x	192"	172.80 lbs.

For weight per square foot see pages 221 through 224.

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## 3 S HALF HARD ALUMINUM SHEETS

High Mill Finish

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 20 (.032")	36"x	96"	10.80 lbs.	No. 11 (.091")	60"x	x168"	89.60 lbs.
No. 20 (.032")	36"x	x144"	16.20 lbs.	No. 10 (.102")	48"x	x144"	68.96 lbs.
No. 20 (.032")	48"x	x144"	21.60 lbs.	No. 10 (.102")	60"x	x168"	100.80 lbs.
No. 20 (.032")	60"x	x144"	27.00 lbs.	1/8" (.125")	36"x	96"	43.44 lbs.
No. 18 (.040")	60"x	x144"	34.08 lbs.	1/8" (.125")	48"x	x144"	86.88 lbs.
No. 16 (.050")	36"x	96"	17.18 lbs.	3/16" (.187")	36"x	96"	63.60 lbs.
No. 14 (.064")	36"x	96"	21.67 lbs.	3/16" (.187")	60"x	x144"	159.00 lbs.
No. 14 (.064")	48"x	x144"	43.34 lbs.	3/16" (.187")	48"x	x144"	127.20 lbs.
No. 14 (.064")	60"x	x168"	63.21 lbs.	1/4" (.250")	36"x	96"	84.48 lbs.
No. 12 (.081")	48"x	x144"	54.72 lbs.	1/4" (.250")	48"x	x144"	168.96 lbs.
No. 12 (.081")	60"x	x168"	79.80 lbs.	1/4" (.250")	60"x	x144"	211.20 lbs.
No. 11 (.091")	48"x	x144"	61.44 lbs.				

For weight per square foot see pages 221 through 224.





## 17 S-T ALUMINUM SHEETS

### High Strength Alloy

(Heat Treated)

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 30 (.010")	24"	x120"	2.88 lbs.	1/8" (.125")	30"	x 72"	27.15 lbs.
No. 28 (.012")	24"	x120"	3.46 lbs.	1/8" (.125")	36"	x 96"	43.24 lbs.
No. 26 (.016")	36"	x144"	8.28 lbs.	1/8" (.125")	36"	x120"	54.30 lbs.
No. 24 (.020")	36"	x 96"	6.96 lbs.	1/8" (.125")	48"	x120"	72.40 lbs.
No. 24 (.020")	36"	x120"	8.66 lbs.	1/8" (.125")	36"	x144"	65.16 lbs.
No. 22 (.025")	36"	x120"	10.80 lbs.	1/8" (.125")	48"	x144"	86.88 lbs.
No. 20 (.032")	36"	x 96"	11.16 lbs.	1/8" (.125")	60"	x144"	108.60 lbs.
No. 20 (.032")	36"	x144"	16.10 lbs.	1/8" (.125")	60"	x168"	126.70 lbs.
No. 20 (.032")	48"	x144"	22.32 lbs.	3/16" (.187")	24"	x 72"	32.64 lbs.
No. 18 (.040")	36"	x 96"	14.14 lbs.	3/16" (.187")	36"	x 96"	65.28 lbs.
No. 18 (.040")	48"	x144"	27.62 lbs.	3/16" (.187")	36"	x120"	81.60 lbs.
No. 16 (.050")	36"	x 96"	17.62 lbs.	3/16" (.187")	48"	x120"	108.80 lbs.
No. 16 (.050")	36"	x144"	26.41 lbs.	3/16" (.187")	48"	x144"	130.56 lbs.
No. 16 (.050")	48"	x144"	35.30 lbs.	3/16" (.187")	60"	x144"	163.20 lbs.
No. 14 (.064")	36"	x 96"	22.32 lbs.	1/4" (.250")	24"	x 72"	43.44 lbs.
No. 14 (.064")	36"	x120"	27.91 lbs.	1/4" (.250")	30"	x 72"	54.30 lbs.
No. 14 (.064")	36"	x144"	33.20 lbs.	1/4" (.250")	36"	x 96"	86.88 lbs.
No. 14 (.064")	48"	x120"	37.20 lbs.	1/4" (.250")	36"	x120"	108.60 lbs.
No. 14 (.064")	48"	x144"	44.25 lbs.	1/4" (.250")	60"	x144"	217.20 lbs.
No. 12 (.081")	36"	x 96"	28.18 lbs.	5/16" (.312")	24"	x 72"	54.84 lbs.
No. 12 (.081")	36"	x120"	35.00 lbs.	5/16" (.312")	30"	x 72"	68.75 lbs.
No. 12 (.081")	36"	x144"	28.18 lbs.	5/16" (.312")	30"	x 96"	91.40 lbs.
No. 11 (.091")	36"	x 96"	31.64 lbs.	5/16" (.312")	36"	x 96"	109.68 lbs.
No. 11 (.091")	36"	x120"	39.30 lbs.	3/8" (.375")	30"	x 96"	108.80 lbs.
No. 11 (.091")	48"	x120"	52.40 lbs.	3/8" (.375")	36"	x 96"	130.56 lbs.
No. 11 (.091")	36"	x144"	47.16 lbs.	1/2" (.500")	24"	x 72"	87.00 lbs.
No. 11 (.091")	48"	x144"	62.88 lbs.	1/2" (.500")	36"	x 96"	174.00 lbs.
No. 11 (.091")	60"	x168"	91.70 lbs.	5/8" (.625")	36"	x 96"	216.20 lbs.
No. 10 (.102")	36"	x120"	44.10 lbs.	3/4" (.750")	36"	x 96"	261.12 lbs.
No. 10 (.102")	60"	x144"	88.20 lbs.	7/8" (.875")	36"	x 96"	302.68 lbs.
1/8" (.125")	24"	x 72"	21.62 lbs.	1" (1.00")	36"	x 96"	347.52 lbs.

For weight per square foot see pages 221 through 224.

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## 17 S-O (SOFT) ALUMINUM SHEETS

### High Strength Alloy (Annealed)

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 24 (.020")	36"	x 96"	7.07 lbs.	No. 16 (.050")	36"	x 96"	17.70 lbs.
No. 24 (.020")	36"	x 144"	10.40 lbs.	No. 16 (.050")	48"	x 144"	35.40 lbs.
No. 22 (.025")	36"	x 96"	8.64 lbs.	No. 14 (.064")	36"	x 96"	22.32 lbs.
No. 22 (.025")	42"	x 144"	15.44 lbs.	No. 14 (.064")	48"	x 144"	44.64 lbs.
No. 20 (.032")	36"	x 96"	11.16 lbs.	No. 12 (.081")	36"	x 96"	28.18 lbs.
No. 20 (.032")	48"	x 144"	22.32 lbs.	No. 11 (.091")	36"	x 96"	31.64 lbs.
No. 18 (.040")	36"	x 96"	14.04 lbs.	No. 11 (.091")	48"	x 144"	63.28 lbs.
No. 18 (.040")	48"	x 144"	28.07 lbs.	1/8" (.125")	36"	x 96"	43.24 lbs.

## 17 S-T ALCLAD ALUMINUM SHEETS

### High Strength Alloy (Heat Treated)

With Aluminum Covering Both Sides

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 26 (.016")	36"	x 144"	8.35 lbs.	No. 18 (.040")	36"	x 144"	20.70 lbs.
No. 24 (.020")	36"	x 144"	10.40 lbs.	No. 18 (.040")	48"	x 144"	27.62 lbs.
No. 22 (.025")	36"	x 144"	12.96 lbs.	No. 16 (.050")	48"	x 144"	35.30 lbs.
No. 20 (.032")	36"	x 144"	16.10 lbs.	No. 14 (.064")	48"	x 144"	44.25 lbs.
No. 20 (.032")	48"	x 144"	22.32 lbs.	No. 11 (.091")	36"	x 120"	39.30 lbs.

## 24 S-T ALUMINUM SHEETS

### High Strength Alloy (Heat Treated)

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 26 (.016")	36"	x 144"	8.28 lbs.	No. 14 (.064")	36"	x 96"	22.32 lbs.
No. 24 (.020")	36"	x 144"	10.44 lbs.	No. 14 (.064")	48"	x 144"	44.64 lbs.
No. 22 (.025")	36"	x 144"	12.95 lbs.	No. 11 (.091")	36"	x 144"	47.16 lbs.
No. 20 (.032")	36"	x 96"	11.16 lbs.	1/8" (.125")	48"	x 144"	88.86 lbs.
No. 20 (.032")	36"	x 144"	16.74 lbs.	3/16" (.187")	24"	x 72"	32.64 lbs.
No. 20 (.032")	48"	x 144"	22.32 lbs.	1/4" (.250")	24"	x 72"	43.44 lbs.
No. 18 (.040")	36"	x 96"	14.03 lbs.	3/8" (.375")	24"	x 72"	65.28 lbs.
No. 18 (.040")	36"	x 144"	20.70 lbs.	1/2" (.500")	24"	x 72"	87.00 lbs.
No. 18 (.040")	48"	x 144"	28.07 lbs.	3/4" (.750")	24"	x 72"	130.56 lbs.
No. 16 (.050")	36"	x 96"	17.65 lbs.	7/8" (.875")	24"	x 72"	152.28 lbs.
No. 16 (.050")	36"	x 144"	26.40 lbs.	1" (1.000")	24"	x 72"	174.00 lbs.
No. 16 (.050")	48"	x 144"	35.30 lbs.				

All 24 S-T Sheets are Stenciled with the Alloy Designation  
For weight per square foot see pages 221 through 224.



# • ALCOA ALUMINUM



## 24 S-O (SOFT) ALUMINUM SHEETS

### High Strength Alloy

(Annealed)

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 22 (.025")	36"	x144"	12.95 lbs.	No. 16 (.050")	48"	x144"	35.30 lbs.
No. 20 (.032")	36"	x 96"	11.16 lbs.	No. 14 (.064")	48"	x144"	44.64 lbs.
No. 20 (.032")	48"	x144"	22.32 lbs.	1/8" (.125")	48"	x144"	88.86 lbs.
No. 18 (.040")	48"	x144"	28.07 lbs.				

## 24 S-O (SOFT) ALCLAD ALUMINUM SHEETS

### High Strength Alloy

(Annealed)

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 24 (.020")	36"	x144"	10.44 lbs.	No. 18 (.040")	48"	x144"	28.07 lbs.
No. 22 (.025")	36"	x144"	12.95 lbs.	No. 16 (.050")	36"	x144"	26.40 lbs.
No. 20 (.032")	36"	x144"	16.74 lbs.	No. 16 (.050")	48"	x144"	35.30 lbs.
No. 20 (.032")	48"	x144"	22.32 lbs.	No. 14 (.064")	36"	x144"	33.12 lbs.
No. 18 (.040")	36"	x144"	20.70 lbs.	No. 14 (.064")	48"	x144"	43.64 lbs.

## 24 S-T ALCLAD ALUMINUM SHEETS

### High Strength Alloy

(Heat Treated)

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 24 (.020")	36"	x144"	9.85 lbs.	No. 16 (.050")	36"	x144"	26.40 lbs.
No. 22 (.025")	36"	x144"	12.95 lbs.	No. 16 (.050")	48"	x144"	35.30 lbs.
No. 20 (.032")	36"	x144"	16.00 lbs.	No. 14 (.064")	36"	x144"	33.12 lbs.
No. 20 (.032")	48"	x144"	22.32 lbs.	No. 14 (.064")	48"	x144"	44.64 lbs.
No. 18 (.040")	36"	x144"	20.70 lbs.	No. 12 (.081")	36"	x144"	41.40 lbs.
No. 18 (.040")	48"	x144"	28.07 lbs.				

## 52 S HARD ALUMINUM SHEETS

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 20 (.032")	36"	x 96"	10.80 lbs.	No. 11 (.091")	36"	x 96"	30.72 lbs.
No. 18 (.040")	36"	x 96"	13.73 lbs.	No. 10 (.102")	36"	x 96"	34.48 lbs.
No. 16 (.050")	36"	x 96"	17.18 lbs.	1/8" (.125")	36"	x 96"	42.24 lbs.
No. 14 (.064")	36"	x 96"	21.67 lbs.				

For weight per square foot see pages 221 through 224.





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## 52 S HALF HARD ALUMINUM SHEETS

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 26 (.016")	36"	x120"	6.75 lbs.	No. 14 (.064")	36"	x 96"	21.67 lbs.
No. 24 (.020")	36"	x120"	11.50 lbs.	No. 14 (.064")	48"	x144"	43.34 lbs.
No. 22 (.025")	42"	x144"	15.00 lbs.	No. 12 (.081")	36"	x 96"	27.36 lbs.
No. 20 (.032")	36"	x 96"	10.80 lbs.	No. 11 (.091")	36"	x 96"	30.72 lbs.
No. 20 (.032")	48"	x144"	21.60 lbs.	No. 10 (.102")	36"	x 96"	34.48 lbs.
No. 18 (.040")	36"	x 96"	13.73 lbs.	1/8" (.125")	36"	x 96"	42.24 lbs.
No. 18 (.040")	48"	x144"	27.26 lbs.	1/8" (.125")	36"	x120"	52.80 lbs.
No. 16 (.050")	36"	x 96"	17.18 lbs.	3/16" (.187")	36"	x 96"	63.60 lbs.
No. 16 (.050")	48"	x144"	34.37 lbs.	1/4" (.250")	36"	x120"	105.60 lbs.
No. 16 (.050")	60"	x144"	42.48 lbs.				

## 52 S QUARTER HARD ALUMINUM SHEETS

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 24 (.020")	36"	x144"	10.19 lbs.	No. 14 (.064")	60"	x144"	55.00 lbs.
No. 22 (.025")	36"	x144"	12.85 lbs.	No. 12 (.081")	36"	x 96"	27.36 lbs.
No. 20 (.032")	36"	x 96"	10.80 lbs.	No. 12 (.081")	48"	x144"	54.72 lbs.
No. 20 (.032")	48"	x144"	21.60 lbs.	No. 12 (.081")	60"	x144"	68.48 lbs.
No. 18 (.040")	36"	x 96"	13.73 lbs.	No. 11 (.091")	36"	x 96"	30.72 lbs.
No. 18 (.040")	48"	x144"	27.26 lbs.	No. 11 (.091")	48"	x144"	61.44 lbs.
No. 18 (.040")	60"	x144"	34.08 lbs.	No. 10 (.102")	36"	x 96"	34.48 lbs.
No. 16 (.050")	36"	x 96"	17.18 lbs.	No. 10 (.102")	48"	x144"	68.97 lbs.
No. 16 (.050")	48"	x144"	34.37 lbs.	No. 10 (.102")	60"	x144"	86.40 lbs.
No. 16 (.050")	60"	x144"	42.96 lbs.	1/8" (.125")	36"	x 96"	43.84 lbs.
No. 14 (.064")	36"	x 96"	21.67 lbs.	1/8" (.125")	48"	x144"	86.88 lbs.
No. 14 (.064")	48"	x144"	43.34 lbs.				

For weight per square foot see pages 221 through 224.

## 61 S-W ALUMINUM TREAD PLATES

Thickness Inches	Widths	Lengths	Appr. Wt. Per Sq. Ft.
1/8" (.125")	— 40"—48"	— 120"—240"	— 2.00 lbs.
3/16" (.187")	— 40"—48"	— 120"—240"	— 2.80 lbs.
1/4" (.250")	— 40"—48"	— 120"—240"	— 3.70 lbs.

# • ALCOA ALUMINUM



## ROUND 2 S ALUMINUM RODS

In 12-Foot Lengths

Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot
1/8"	.0143 lbs.	3/8"	.129 lbs.	1"	.921 lbs.	2 1/2"	5.755 lbs.
5/32"	.0224 lbs.	7/16"	.176 lbs.	1 1/4"	1.439 lbs.	2 3/4"	6.964 lbs.
3/16"	.032 lbs.	1/2"	.230 lbs.	1 1/2"	2.072 lbs.	3"	8.304 lbs.
7/32"	.045 lbs.	5/8"	.360 lbs.	1 3/4"	2.83 lbs.		
1/4"	.058 lbs.	3/4"	.518 lbs.	2"	3.683 lbs.		
5/16"	.090 lbs.	7/8"	.705 lbs.	2 1/4"	4.662 lbs.		

## HEXAGON 2 S ALUMINUM RODS

In 12-Foot Lengths

Diameter Across Flats	Appr. Wt. Per Foot
1/4"	.063 lbs.

## SQUARE 2 S HALF HARD ALUMINUM RODS

In 12-Foot Lengths

Dimensions Across Flats	Appr. Wt. Per Foot
3/16" x 3/16"	.041 lbs.

## ROUND 3 S ALUMINUM RODS

In 12-Foot Lengths

Carried in Our Buffalo Warehouse

Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot
1/4"	.058 lbs.	1/2"	.220 lbs.
3/8"	.129 lbs.	1 1/2"	2.072 lbs.

## ROUND 11 S-T3 ALUMINUM RODS

Recommended for High Speed Screw Machine Work

In 12-Foot Lengths

Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot
1/8"	.014 lbs.	7/16"	.181 lbs.	1"	.950 lbs.	1 5/8"	2.509 lbs.
5/32"	.022 lbs.	15/32"	.212 lbs.	1 1/16"	1.071 lbs.	1 3/4"	2.912 lbs.
3/16"	.033 lbs.	1/2"	.237 lbs.	1 1/8"	1.203 lbs.	1 7/8"	3.224 lbs.
7/32"	.045 lbs.	9/16"	.301 lbs.	1 5/32"	1.283 lbs.	1 15/16"	3.571 lbs.
1/4"	.058 lbs.	5/8"	.370 lbs.	1 3/16"	1.362 lbs.	2"	3.802 lbs.
9/32"	.075 lbs.	1 1/16"	.436 lbs.	1 1/4"	1.485 lbs.	2 1/4"	4.670 lbs.
5/16"	.093 lbs.	3/4"	.519 lbs.	1 5/16"	1.664 lbs.	2 1/2"	5.940 lbs.
1 1/32"	.112 lbs.	13/16"	.627 lbs.	1 3/8"	1.796 lbs.	3"	8.535 lbs.
3/8"	.133 lbs.	7/8"	.727 lbs.	1 1/2"	2.138 lbs.		
1 3/32"	.159 lbs.	15/16"	.835 lbs.	1 9/16"	2.319 lbs.		



# ALCOA ALUMINUM •

## ROUND 17 S-T ALUMINUM RODS

In 12-Foot Lengths

Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot
1/16"	.005 lbs.	15/32"	.212 lbs.	15/16"	1.664 lbs.	23/8"	5.447 lbs.
1/8"	.014 lbs.	1/2"	.237 lbs.	13/8"	1.796 lbs.	21/2"	5.940 lbs.
9/64"	.020 lbs.	17/32"	.273 lbs.	17/16"	1.910 lbs.	25/8"	6.653 lbs.
5/32"	.022 lbs.	9/16"	.301 lbs.	1 1/2"	2.138 lbs.	23/4"	7.173 lbs.
11/64"	.027 lbs.	19/32"	.336 lbs.	19/16"	2.319 lbs.	3"	8.535 lbs.
3/16"	.033 lbs.	5/8"	.370 lbs.	15/8"	2.509 lbs.	3 1/4"	10.088 lbs.
13/64"	.039 lbs.	11/16"	.449 lbs.	11 1/16"	2.750 lbs.	3 1/2"	11.642 lbs.
7/32"	.045 lbs.	3/4"	.535 lbs.	13/4"	2.912 lbs.	3 3/4"	13.424 lbs.
15/64"	.052 lbs.	13/16"	.627 lbs.	11 3/16"	3.127 lbs.	4"	15.206 lbs.
1/4"	.058 lbs.	7/8"	.727 lbs.	17/8"	3.341 lbs.	4 1/4"	16.666 lbs.
9/32"	.075 lbs.	15/16"	.835 lbs.	11 5/16"	3.571 lbs.	4 1/2"	19.244 lbs.
5/16"	.093 lbs.	1"	.950 lbs.	2"	3.802 lbs.	4 3/4"	20.777 lbs.
11/32"	.112 lbs.	1 1/16"	1.071 lbs.	2 1/16"	4.082 lbs.	5"	23.022 lbs.
3/8"	.133 lbs.	1 1/8"	1.203 lbs.	2 1/8"	4.360 lbs.	6"	33.217 lbs.
13/32"	.159 lbs.	1 3/16"	1.362 lbs.	2 1/4"	4.811 lbs.		
7/16"	.181 lbs.	1 1/4"	1.485 lbs.	2 5/16"	5.129 lbs.		

## RECTANGULAR 17 S-T ALUMINUM RODS

In Random 12-Foot Lengths

Dimensions	Appr. Wt. Per Foot	Dimensions	Appr. Wt. Per Foot	Dimensions	Appr. Wt. Per Foot
1/8" x 3/8"	.056 lbs.	1/4" x 5/8"	.184 lbs.	3/8" x 2 1/2"	1.134 lbs.
1/8" x 1/2"	.076 lbs.	1/4" x 3/4"	.227 lbs.	1/2" x 3/4"	.454 lbs.
1/8" x 5/8"	.090 lbs.	1/4" x 1"	.302 lbs.	1/2" x 7/8"	.529 lbs.
1/8" x 3/4"	.113 lbs.	1/4" x 1 1/4"	.378 lbs.	1/2" x 1"	.605 lbs.
1/8" x 1"	.151 lbs.	1/4" x 1 1/2"	.454 lbs.	1/2" x 1 1/4"	.756 lbs.
1/8" x 1 1/4"	.189 lbs.	1/4" x 1 3/4"	.529 lbs.	1/2" x 1 1/2"	.907 lbs.
1/8" x 1 1/2"	.227 lbs.	1/4" x 2"	.605 lbs.	1/2" x 1 3/4"	1.057 lbs.
1/8" x 1 3/4"	.266 lbs.	1/4" x 2 1/2"	.756 lbs.	1/2" x 2"	1.210 lbs.
1/8" x 2"	.302 lbs.	1/4" x 3"	.880 lbs.	1/2" x 3"	1.763 lbs.
3/16" x 1/2"	.113 lbs.	5/16" x 1"	.367 lbs.	5/8" x 1 1/2"	1.134 lbs.
3/16" x 5/8"	.137 lbs.	3/8" x 1/2"	.227 lbs.	3/4" x 1"	.907 lbs.
3/16" x 3/4"	.170 lbs.	3/8" x 5/8"	.283 lbs.	3/4" x 1 1/2"	1.362 lbs.
3/16" x 1"	.227 lbs.	3/8" x 3/4"	.340 lbs.	3/4" x 2"	1.814 lbs.
3/16" x 1 1/4"	.284 lbs.	3/8" x 1"	.453 lbs.	3/4" x 2 1/2"	2.203 lbs.
3/16" x 1 1/2"	.340 lbs.	3/8" x 1 1/4"	.566 lbs.	3/4" x 3"	2.640 lbs.
3/16" x 1 3/4"	.355 lbs.	3/8" x 1 1/2"	.681 lbs.	1" x 1 1/2"	1.815 lbs.
3/16" x 2"	.454 lbs.	3/8" x 1 3/4"	.749 lbs.	1" x 2"	2.222 lbs.
1/4" x 1/2"	.151 lbs.	3/8" x 2"	.907 lbs.		



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## SQUARE 17 S-T ALUMINUM RODS

In Random 12-Foot Lengths—Measured Across Flats

Dimensions	Appr. Wt. Per Foot	Dimensions	Appr. Wt. Per Foot	Dimensions	Appr. Wt. Per Foot
$\frac{3}{16}$ " x $\frac{3}{16}$ "	.044 lbs.	$\frac{1}{2}$ " x $\frac{1}{2}$ "	.302 lbs.	1" x 1"	1.207 lbs.
$\frac{1}{4}$ " x $\frac{1}{4}$ "	.075 lbs.	$\frac{5}{8}$ " x $\frac{5}{8}$ "	.472 lbs.	$\frac{1}{4}$ " x $\frac{1}{4}$ "	1.887 lbs.
$\frac{5}{16}$ " x $\frac{5}{16}$ "	.118 lbs.	$\frac{3}{4}$ " x $\frac{3}{4}$ "	.679 lbs.	$\frac{1}{2}$ " x $\frac{1}{2}$ "	2.717 lbs.
$\frac{3}{8}$ " x $\frac{3}{8}$ "	.170 lbs.	$\frac{7}{8}$ " x $\frac{7}{8}$ "	.925 lbs.	2" x 2"	4.690 lbs.

## HEXAGON 17 S-T ALUMINUM RODS

In Random 12-Foot Lengths—Measured Across Flats

Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot
$\frac{3}{16}$ "	.036 lbs.	$\frac{1}{2}$ "	.262 lbs.	$\frac{7}{8}$ "	.802 lbs.	$\frac{1}{4}$ "	1.634 lbs.
$\frac{1}{4}$ "	.065 lbs.	$\frac{9}{16}$ "	.331 lbs.	$\frac{15}{16}$ "	.920 lbs.	$\frac{1}{8}$ "	1.978 lbs.
$\frac{5}{16}$ "	.102 lbs.	$\frac{5}{8}$ "	.409 lbs.	1"	1.046 lbs.	$\frac{1}{2}$ "	2.354 lbs.
$\frac{1}{32}$ "	.125 lbs.	$\frac{11}{16}$ "	.493 lbs.	$\frac{11}{16}$ "	1.181 lbs.	$\frac{1}{16}$ "	2.584 lbs.
$\frac{3}{8}$ "	.147 lbs.	$\frac{3}{4}$ "	.589 lbs.	$\frac{11}{8}$ "	1.324 lbs.	$\frac{15}{8}$ "	2.812 lbs.
$\frac{7}{16}$ "	.200 lbs.	$\frac{13}{16}$ "	.692 lbs.	$\frac{13}{16}$ "	1.430 lbs.	$\frac{13}{4}$ "	3.157 lbs.

## ROUND 24 S-T ALUMINUM RODS

In 12 Ft. Lengths

Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot
$\frac{3}{16}$ "	.032 lbs.	$\frac{5}{8}$ "	.360 lbs.	$\frac{11}{2}$ "	2.076 lbs.	3"	8.300 lbs.
$\frac{1}{4}$ "	.057 lbs.	$\frac{3}{4}$ "	.519 lbs.	$\frac{13}{4}$ "	2.826 lbs.	$\frac{3}{4}$ "	9.750 lbs.
$\frac{5}{16}$ "	.090 lbs.	$\frac{7}{8}$ "	.706 lbs.	$\frac{17}{8}$ "	3.224 lbs.	$\frac{3}{2}$ "	11.303 lbs.
$\frac{3}{8}$ "	.130 lbs.	1"	.923 lbs.	2"	3.690 lbs.	$\frac{3}{4}$ "	12.975 lbs.
$\frac{7}{16}$ "	.176 lbs.	$\frac{11}{8}$ "	1.168 lbs.	$\frac{21}{4}$ "	4.662 lbs.		
$\frac{1}{2}$ "	.230 lbs.	$\frac{11}{4}$ "	1.442 lbs.	$\frac{21}{2}$ "	5.770 lbs.		
$\frac{9}{16}$ "	.291 lbs.	$\frac{13}{8}$ "	1.744 lbs.	$\frac{23}{4}$ "	6.980 lbs.		

## HEXAGON 24 S-T ALUMINUM ROD

In Random 12-Ft. Lengths—Measured Across Flats

Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot
$\frac{3}{8}$ "	.143 lbs.	$\frac{1}{2}$ "	.254 lbs.	$\frac{5}{8}$ "	.397 lbs.	1"	1.016 lbs.
$\frac{7}{16}$ "	.195 lbs.	$\frac{9}{16}$ "	.322 lbs.	$\frac{3}{4}$ "	.572 lbs.	$\frac{11}{4}$ "	1.588 lbs.

## ROUND 53 S-T ALUMINUM RODS

In Random 12-Foot Lengths

Carried in Our Buffalo and Philadelphia Warehouses Only

Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot
$\frac{1}{4}$ "	.058 lbs.	$\frac{1}{2}$ "	.230 lbs.	$\frac{3}{4}$ "	.518 lbs.	1"	.921 lbs.
$\frac{5}{16}$ "	.090 lbs.	$\frac{5}{8}$ "	.360 lbs.	$\frac{7}{8}$ "	.705 lbs.	$\frac{11}{2}$ "	2.072 lbs.
$\frac{3}{8}$ "	.129 lbs.						



# ALCOA ALUMINUM •

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## HEXAGON 53 S-T ALUMINUM RODS

In Random 12-Foot Lengths—Measured Across Flats  
Carried in Our Buffalo Warehouse Only

Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot
7/16"	.194 lbs.	9/16"	.321 lbs.	1 1/16"	.478 lbs.	3/4"	.572 lbs.
1/2"	.254 lbs.	5/8"	.397 lbs.				

## SQUARE 53 S ALUMINUM RODS

In Random 16-Foot Lengths—Measured Across Flats

Dimensions	Appr. Wt. Per Foot	Dimensions	Appr. Wt. Per Foot	Dimensions	Appr. Wt. Per Foot
1/4" x 1/4"	.071 lbs.	7/16" x 7/16"	.225 lbs.	3/4" x 3/4"	.659 lbs.
5/16" x 5/16"	.115 lbs.	1/2" x 1/2"	.293 lbs.	7/8" x 7/8"	.899 lbs.
3/8" x 3/8"	.165 lbs.	5/8" x 5/8"	.458 lbs.	1" x 1"	1.172 lbs.

## RECTANGULAR 53 S ALUMINUM RODS

In Random 16-Foot Lengths

Dimensions	Appr. Wt. Per Foot	Dimensions	Appr. Wt. Per Foot	Dimensions	Appr. Wt. Per Foot
1/8" x 1/2"	.073 lbs.	3/16" x 2"	.441 lbs.	3/8" x 3/4"	.331 lbs.
1/8" x 5/8"	.090 lbs.	3/16" x 2 1/2"	.551 lbs.	3/8" x 1"	.441 lbs.
1/8" x 3/4"	.110 lbs.	1/4" x 1/2"	.147 lbs.	3/8" x 1 1/4"	.551 lbs.
1/8" x 1"	.147 lbs.	1/4" x 5/8"	.187 lbs.	3/8" x 1 1/2"	.661 lbs.
1/8" x 1 1/4"	.184 lbs.	1/4" x 3/4"	.220 lbs.	3/8" x 1 3/4"	.771 lbs.
1/8" x 1 1/2"	.220 lbs.	1/4" x 1"	.294 lbs.	3/8" x 2"	.881 lbs.
1/8" x 1 3/4"	.257 lbs.	1/4" x 1 1/4"	.367 lbs.	1/2" x 3/4"	.441 lbs.
1/8" x 2"	.294 lbs.	1/4" x 1 1/2"	.441 lbs.	1/2" x 1"	.587 lbs.
3/16" x 1/2"	.110 lbs.	1/4" x 1 3/4"	.514 lbs.	1/2" x 1 1/2"	.881 lbs.
3/16" x 3/4"	.165 lbs.	1/4" x 2"	.587 lbs.	1/2" x 1 3/4"	1.028 lbs.
3/16" x 1"	.220 lbs.	1/4" x 2 1/2"	.750 lbs.	1/2" x 2"	1.175 lbs.
3/16" x 1 1/4"	.275 lbs.	1/4" x 3"	.900 lbs.	1/2" x 2 1/2"	1.175 lbs.
3/16" x 1 1/2"	.330 lbs.	5/16" x 3/4"	.281 lbs.	1/2" x 3"	1.800 lbs.
3/16" x 1 3/4"	.385 lbs.	5/16" x 1"	.376 lbs.	3/4" x 1 3/4"	2.042 lbs.

## ALUMINUM ELECTRIC WELDING RODS

Flux Coated

See Welding and Brazing Section, Page 197.

## EXTRUDED 3S ALUMINUM WINDOW SILLS

In Standard 20-Foot Lengths

Width	Die No.	Appr. Wt. Per Foot	Width	Die No.	Appr. Wt. Per Foot
3 1/2"	18053	.692 lbs.	5"	18971	.919 lbs.
4"	18054	.767 lbs.	5 1/2"	18055	.994 lbs.
4 1/2"	16754	.844 lbs.	6"	18972	1.067 lbs.

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## EXTRUDED 3 S ALUMINUM MOULDINGS

### HALF OVAL

In 13-Foot Lengths

Width Across Flats	Thickness	Die No.	Appr. Wt. Per Foot	Width Across Flats	Thickness	Die No.	Appr. Wt. Per Foot
3/8" x 1/8" (.125")		74-J	.043 lbs.	1" x 3/16" (.187")		650	.188 lbs.
1/2" x 5/32" (.156")		74-L	.067 lbs.	1" x 1/4" (.250")		74-D	.228 lbs.
1/2" x 3/16" (.187")		74-C	.086 lbs.	1 1/8" x 3/16" (.187")		510	.206 lbs.
5/8" x 3/16" (.187")		74-A	.107 lbs.	1 1/8" x 7/32" (.217")		833	.201 lbs.
5/8" x 1/4" (.250")		74-O	.109 lbs.	1 1/4" x 1/4" (.250")		74-F	.286 lbs.
23/32" x 3/16" (.187")		1843	.072 lbs.	1 1/4" x 5/16" (.312")		74-G	.300 lbs.
3/4" x 1/8" (.125")		74-N	.088 lbs.	1 1/2" x 3/16" (.187")		341	.306 lbs.
3/4" x 3/16" (.187")		74-B	.117 lbs.	1 1/2" x 7/32" (.217")		363	.356 lbs.
3/4" x 1/4" (.250")		74-K	.170 lbs.	1 1/2" x 7/32" (.217")		563	.331 lbs.
7/8" x 3/16" (.187")		74-H	.142 lbs.	2" x 1/4" (.250")		74-P	.418 lbs.
7/8" x 1/4" (.250")		74-E	.186 lbs.				

### DRIP MOULDING

In 13-Foot Lengths

Die No.	Appr. Wt. Per Foot	Die No.	Appr. Wt. Per Foot	Die No.	Appr. Wt. Per Foot
254	.228 lbs.	668	.297 lbs.	1647	.221 lbs.
478	.229 lbs.	1016	.267 lbs.		
627	.188 lbs.	1347	.118 lbs.		

### MISCELLANEOUS ANGLE SHAPES

In 13-Foot Lengths

Die No.	Appr. Wt. Per Foot	Die No.	Appr. Wt. Per Foot	Die No.	Appr. Wt. Per Foot
D-10	.192 lbs.	787	.433 lbs.	1643	.404 lbs.
680	.115 lbs.	1165	.126 lbs.	2015	.206 lbs.

### MISCELLANEOUS SHAPES

In 13-Foot Lengths

Die No.	Appr. Wt. Per Foot	Die No.	Appr. Wt. Per Foot	Die No.	Appr. Wt. Per Foot
63	.188 lbs.	*991	.059 lbs.	5012	.261 lbs.
972	.133 lbs.				

\*CARRIED IN 17ST ONLY

FOR DETAILED DIMENSIONAL DRAWINGS OF ALL ALUMINUM  
SHAPES CARRIED IN STOCK, WRITE FOR BOOKLET  
"FUNNY SHAPES"

WHITEHEAD METAL PRODUCTS COMPANY, Inc.





# ALCOA ALUMINUM •

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## 17 S-T ALUMINUM STRUCTURAL SHAPES

### High Strength Alloy

(Heat Treated)

In Random 25-Foot Lengths—Or Cut to Specific Length  
(Outside Dimensions Are Shown)

### EQUAL ANGLES

Size of Legs	Thickness of Legs	Appr. Wt. Per Foot	Size of Legs	Thickness of Legs	Appr. Wt. Per Foot
*1/2" x 1/2" x 1/16"		.07 lbs.	2" x 2" x 3/16"		.87 lbs.
*3/4" x 3/4" x 1/16"		.11 lbs.	2 1/2" x 2 1/2" x 3/16"		1.10 lbs.
*1" x 1" x 1/16"		.15 lbs.	3" x 3" x 3/16"		1.33 lbs.
*5/8" x 5/8" x 3/32"		.13 lbs.	1 1/4" x 1 1/4" x 1/4"		.68 lbs.
*1" x 1" x 3/32"		.22 lbs.	1 1/2" x 1 1/2" x 1/4"		.83 lbs.
3/4" x 3/4" x 1/8"		.21 lbs.	2" x 2" x 1/4"		1.14 lbs.
1" x 1" x 1/8"		.28 lbs.	2 1/2" x 2 1/2" x 1/4"		1.45 lbs.
1 1/4" x 1 1/4" x 1/8"		.36 lbs.	3" x 3" x 1/4"		1.73 lbs.
1 1/2" x 1 1/2" x 1/8"		.44 lbs.	4" x 4" x 1/4"		2.35 lbs.
1 3/4" x 1 3/4" x 1/8"		.51 lbs.	2" x 2" x 5/16"		1.40 lbs.
2" x 2" x 1/8"		.59 lbs.	2 1/2" x 2 1/2" x 5/16"		1.78 lbs.
1" x 1" x 3/16"		.41 lbs.	3" x 3" x 5/16"		2.14 lbs.
1 1/4" x 1 1/4" x 3/16"		.53 lbs.	3" x 3" x 3/8"		2.55 lbs.
1 1/2" x 1 1/2" x 3/16"		.64 lbs.	4" x 4" x 3/8"		3.46 lbs.
1 3/4" x 1 3/4" x 3/16"		.75 lbs.			

\* These items are carried in Random 12-foot to 16-foot lengths.

### UNEQUAL ANGLES

Size of Legs	Thickness of Legs	Appr. Wt. Per Foot	Size of Legs	Thickness of Legs	Appr. Wt. Per Foot
2 1/2" x 2" x 3/16"		.99 lbs.	3 1/2" x 2 1/2" x 1/4"		1.73 lbs.
2" x 1 1/2" x 1/4"		.98 lbs.	4" x 3" x 1/4"		2.05 lbs.
2 1/2" x 2" x 1/4"		1.29 lbs.	4" x 3" x 3/8"		3.01 lbs.
3" x 2" x 1/4"		1.44 lbs.	6" x 4" x 3/8"		4.36 lbs.
3" x 2 1/2" x 1/4"		1.580 lbs.			

### CHANNELS

Base	Size of Flange	Thickness of Web	Appr. Wt. Per Foot	Base	Size of Flange	Thickness of Web	Appr. Wt. Per Foot
3"	1.410"	.170"	1.46 lbs.	5"	1.787"	.225"	2.72 lbs.
3"	1.421"	.187"	1.57 lbs.	5"	1.887"	.325"	3.20 lbs.
3"	1.498"	.258"	1.78 lbs.	6"	1.945"	.225"	3.09 lbs.
4"	1.580"	.180"	1.90 lbs.	6"	2.034"	.314"	3.73 lbs.
4"	1.647"	.247"	2.22 lbs.	6"	2.157"	.437"	4.63 lbs.
4"	2.500"	.318"	3.41 lbs.	7"	2.110"	.230"	3.64 lbs.
5"	1.750"	.190"	2.38 lbs.				

### I-BEAMS

Depth	Width of Flange	Thickness of Web	Appr. Wt. Per Foot	Depth	Width of Flange	Thickness of Web	Appr. Wt. Per Foot
3"	2.330"	.170"	2.02 lbs.	4"	2.796"	.326"	3.38 lbs.
3"	2.509"	.349"	2.67 lbs.	5"	3.000"	.210"	3.53 lbs.
4"	2.660"	.190"	2.72 lbs.	5"	3.137"	.347"	4.36 lbs.

# ALCOA ALUMINUM



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## 17 S-T ALUMINUM STRUCTURAL SHAPES (Cont.)

### High Strength Alloy

(Heat Treated)

In Random 25-Foot Lengths—Or Cut to Specific Length  
(Outside Dimensions Are Shown)

### H-BEAMS

Depth	Width of Flange	Thickness of Web	Appr. Wt. Per Foot
4"	4"	.313"	4.85 lbs.

### TEES

Top	Leg	Thickness	Appr. Wt. Per Foot	Top	Leg	Thickness	Appr. Wt. Per Foot
1"	1"	1/8"	.32 lbs.	2"	2"	1/4"	1.29 lbs.
1 1/2"	1 1/2"	1/4"	.89 lbs.	3"	2 1/2"	5/16"	2.19 lbs.

### ZEE BARS

Size	Thickness	Appr. Wt. Per Foot
3"	1/4"	2.40 lbs.

## EXTRUDED 24 S-T ALUMINUM SHAPES

### HALF OVALS

Die No.	Size	Appr. Wt. Per Foot	Die No.	Size	Appr. Wt. Per Foot
74-J	1/8" x 3/8"	.043 lbs.	*74-C	1/2" x 3/16"	.086 lbs.

\* Carried also in 24 SO.

### STRUCTURAL ANGLES

Die No.	Size of Legs—Thickness	Appr. Wt. Per Foot	Die No.	Size of Legs—Thickness	Appr. Wt. Per Foot
78-P	1/2" x 1/2" x 1/16"	.071 lbs.	77-F	1 1/4" x 1 1/4" x 1/8"	.360 lbs.
**1312	1/2" x 1/2" x 1/16"	.070 lbs.	77-R	1 1/2" x 1 1/2" x 1/8"	.440 lbs.
472	3/4" x 3/4" x 1/16"	.108 lbs.	77-L	1 1/2" x 1 1/2" x 3/16"	.640 lbs.
77-A	3/4" x 3/4" x 1/8"	.210 lbs.	484	3/4" x 1 1/2" x 3/32"	.240 lbs.
77-B	1" x 1" x 1/8"	.280 lbs.	755	1 1/16" x 1 1/4" x 3/16"	.526 lbs.

\*\* This size in square corners.

### MISCELLANEOUS SHAPES

Die No.	Shape	Appr. Wt. Per Foot	Die No.	Shape	Appr. Wt. Per Foot
599	Tee x 21 Ft.	.314 lbs.	1730	Tee x 21 Ft.	.380 lbs.
1060	Zee x 16 Ft.	.293 lbs.	5015	Tee x 16 Ft.	.180 lbs.
1377	Zee x 16 Ft.	.437 lbs.			

## 53 S-T ALUMINUM STRUCTURAL ANGLES

In Random 25-Foot Lengths

### EQUAL ANGLES

Size of Legs	Thickness of Legs	Appr. Wt. Per Foot	Size of Legs	Thickness of Legs	Appr. Wt. Per Foot
1 1/4" x 1 1/4" x 3/16"		.530 lbs.	1 1/2" x 1 1/2" x 3/16"		.640 lbs.

### UNEQUAL ANGLES

Size of Legs	Thickness of Legs	Appr. Wt. Per Foot	Size of Legs	Thickness of Legs	Appr. Wt. Per Foot
1 1/2" x 1 1/4" x 1/8"		.40 lbs.	2" x 1 1/4" x 3/16"		.70 lbs.
1 1/2" x 1 1/4" x 3/16"		.58 lbs.	2" x 1 1/2" x 3/16"		.75 lbs.
1 3/4" x 1 1/4" x 3/16"		.64 lbs.	2 1/2" x 1 1/4" x 3/16"		.82 lbs.

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# ALCOA ALUMINUM •

## EXTRUDED 53 S AND 53 ST-5 ALUMINUM SHAPES

In 16-Foot Lengths  
Outside Measurements  
(Square Root—Square Edge)

### EQUAL ANGLES

Size of Legs	Thickness	Die No.	Appr. Wt. Per Foot
$\frac{1}{2}$ " x $\frac{1}{2}$ "	$\frac{1}{16}$ "(.062")	1312	.070 lbs.
* $\frac{1}{2}$ " x $\frac{1}{2}$ "	$\frac{1}{8}$ "(.125")	79-H	.131 lbs.
* $\frac{5}{8}$ " x $\frac{5}{8}$ "	$\frac{1}{8}$ "(.125")	79-O	.168 lbs.
$\frac{3}{4}$ " x $\frac{3}{4}$ "	$\frac{1}{16}$ "(.062")	472	.113 lbs.
* $\frac{3}{4}$ " x $\frac{3}{4}$ "	$\frac{1}{8}$ "(.125")	79-A	.206 lbs.
1" x 1"	$\frac{1}{16}$ "(.062")	79-M	.145 lbs.
* 1" x 1"	$\frac{1}{8}$ "(.125")	79-G	.281 lbs.
* 1" x 1"	$\frac{3}{16}$ "(.187")	79-B	.408 lbs.
* $1\frac{1}{4}$ " x $1\frac{1}{4}$ "	$\frac{1}{8}$ "(.125")	79-T	.356 lbs.
* $1\frac{1}{4}$ " x $1\frac{1}{4}$ "	$\frac{3}{16}$ "(.187")	79-P	.519 lbs.
* $1\frac{1}{2}$ " x $1\frac{1}{2}$ "	$\frac{1}{8}$ "(.125")	79-V	.431 lbs.
* $1\frac{1}{2}$ " x $1\frac{1}{2}$ "	$\frac{3}{16}$ "(.187")	79-N	.633 lbs.
* $1\frac{1}{2}$ " x $1\frac{1}{2}$ "	$\frac{1}{4}$ "(.250")	79-D	.824 lbs.
* 2" x 2"	$\frac{1}{8}$ "(.125")	79-X	.581 lbs.
* 2" x 2"	$\frac{3}{16}$ "(.187")	79-Q	.857 lbs.
* 2" x 2"	$\frac{1}{4}$ "(.250")	79-E	1.124 lbs.

### UNEQUAL ANGLES

Size of Legs	Thickness	Die No.	Appr. Wt. Per Foot
$\frac{3}{4}$ " x $\frac{3}{8}$ "	$\frac{3}{32}$ "(.093")	1944	.116 lbs.
1" x $\frac{1}{2}$ "	$\frac{3}{32}$ "(.093")	1943	.158 lbs.
* 1" x $\frac{1}{2}$ "	$\frac{1}{8}$ "(.125")	7201	.206 lbs.
* $1\frac{1}{4}$ " x $\frac{1}{2}$ "	$\frac{1}{8}$ "(.125")	895	.237 lbs.
* $1\frac{1}{2}$ " x $\frac{3}{4}$ "	$\frac{1}{8}$ "(.125")	5137	.319 lbs.
* 2" x 1"	$\frac{1}{8}$ "(.125")	6844	.431 lbs.
* $3\frac{1}{2}$ " x $1\frac{1}{4}$ "	$\frac{1}{8}$ "(.125")	6746	.694 lbs.

### CHANNELS

Leg	Dimensions Base	Leg	Thickness	Die No.	Appr. Wt. Per Foot
$\frac{3}{8}$ "	$\frac{3}{8}$ " x $\frac{3}{8}$ "	$\frac{3}{8}$ "	$\frac{3}{32}$ "(.093")	3619	.124 lbs.
$\frac{1}{2}$ "	$\frac{1}{2}$ " x $\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{3}{32}$ "(.093")	2749	.148 lbs.
* $\frac{3}{8}$ "	$\frac{1}{2}$ " x $\frac{3}{8}$ "	$\frac{3}{8}$ "	$\frac{1}{8}$ "(.125")	2335	.150 lbs.
* $\frac{3}{8}$ "	$\frac{3}{4}$ " x $\frac{3}{8}$ "	$\frac{3}{8}$ "	$\frac{1}{8}$ "(.125")	2715	.180 lbs.
* $\frac{1}{2}$ "	1" x $\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{8}$ "(.125")	1940	.263 lbs.
* $\frac{1}{2}$ "	$1\frac{1}{4}$ " x $\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{8}$ "(.125")	4286	.300 lbs.
* $\frac{1}{2}$ "	$1\frac{1}{2}$ " x $\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{8}$ "(.125")	4300	.337 lbs.
* $\frac{1}{2}$ "	2" x $\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{8}$ "(.125")	2388	.413 lbs.



# ● ALCOA ALUMINUM



## EXTRUDED 53 S and 53 ST-5 ALUMINUM SHAPES (Cont.)

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### CHANNELS (Cont.)

Leg	Dimensions Base	Leg	Thickness	Die No.	Appr. Wt. Per Foot
* 1/2"	x 3"	x 1/2"	1/8"(.125")	6594	.563 lbs.
* 3/4"	x 1 3/4"	x 3/4"	1/8"(.125")	2105	.450 lbs.
* 7/8"	x 2 1/4"	x 7/8"	1/8"(.125")	2748	.563 lbs.
* 1"	x 1 1/2"	x 1"	1/8"(.125")	2830	.298 lbs.
* 1"	x 1"	x 1"	1/8"(.125")	7484	.413 lbs.
* 1"	x 2"	x 1"	1/8"(.125")	5527	.564 lbs.
* 1"	x 3"	x 1"	1/8"(.125")	3776	.713 lbs.
* 1 1/2"	x 1 1/2"	x 1 1/2"	1/8"(.125")	8720	.637 lbs.

### TEES

Top	Leg	Thickness	Die No.	Appr. Wt. Per Foot
* 5/8"	x 7/8"	1/8"	4560	.224 lbs.
* 3/4"	x 3/4"	3/16"	6772	.295 lbs.
* 7/8"	x 1 7/32"	5/32"	5597	.392 lbs.
* 1 1/4"	x 3/4"	1/8"	5951	.300 lbs.

\* All the above Angles and Channels are carried in 53 ST-5 Alloy only.

### DOOR TRIM

Die No.	Appr. Wt. Per Foot	Die No.	Appr. Wt. Per Foot	Die No.	Appr. Wt. Per Foot
5389	.431 lbs.	5391	.192 lbs.	5393	.431 lbs.
5390	.528 lbs.	5392	.438 lbs.		

## EXTRUDED 53 S ALUMINUM MOULDING

### HAND RAILS

In 20-Foot Lengths

Die No.	Appr. Wt. Per Foot	Die No.	Appr. Wt. Per Foot	Die No.	Appr. Wt. Per Foot
2232	.596 lbs.	4498	.450 lbs.	12729	.888 lbs.
3986	.828 lbs.	7150	.804 lbs.		

### PILASTERS

In 20-Foot Lengths

Die No.	Appr. Wt. Per Foot	Die No.	Appr. Wt. Per Foot	Die No.	Appr. Wt. Per Foot
2134	.756 lbs.	3164	.902 lbs.	6878	.694 lbs.
2372	.516 lbs.	4496	.682 lbs.	8467	.806 lbs.

### MISCELLANEOUS SHAPES

Die No.	Shape	Appr. Wt. Per Foot	Die No.	Shape	Appr. Wt. Per Foot
74-N	Half Oval	.088 lbs.	1257	Tee	.319 lbs.
470	Angle	.154 lbs.	1445	Angle	.093 lbs.
1014	Angle	.236 lbs.	7240	Reed Tube	1.913 lbs.
1122	Half Oval	.558 lbs.			



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## EXTRUDED 53 S-T 5 ALUMINUM DOOR SADDLES

Width	Die No.	Fluted Top In 16 Foot Lengths		Width	Die No.	Appr. Wt. Per Foot
		Appr. Wt. Per Foot				
*21/4"	6226	.516 lbs.		6"	19049	1.226 lbs.
4"	19047	.829 lbs.		7 1/2"	7032	1.860 lbs.
5"	19048	1.102 lbs.				

\*PLAIN TOP

## COVE MOULDING

In Standard 16-Foot Lengths						
Width Across Flats	Die No.	Appr. Wt. Per Foot	Width Across Flats	Die No.	Appr. Wt. Per Foot	
5/8" x 5/8"	251	.218 lbs.	1/4" x 1/4"	1222	.058 lbs.	
3/8" x 7/16"	548	.121 lbs.	3/8" x 3/4"	5965	.121 lbs.	
1/2" x 1/4"	560	.150 lbs.	3/8" x 1 1/2"	6962	.300 lbs.	
3/8" x 1/2"	661	.168 lbs.	3/8" x 1 1/4"	12731	.252 lbs.	
3/16" x 1 3/16"	1001	.174 lbs.				

## 61 S-T ALUMINUM EXTRUDED SHAPES

### WING CHANNELS

Base	Height	Thickness	Appr. Wt. Per Foot	Base	Height	Thickness	Appr. Wt. Per Foot
3 1/2"	3/4"	3/32"	.537 lbs.	5"	1 1/2"	1/8"	1.150 lbs.
4"	1 1/8"	1/8"	.925 lbs.	5"	1 7/8"	3/16"	1.900 lbs.
4"	2"	5/32"	1.173 lbs.				

## EXTRUDED ALUMINUM TRUCK BODY SHAPES

In Random 21 Foot Lengths Or Cut to Specific Length

Die No.	Alloy	Appr. Wt. Per Foot	Die No.	Alloy	Appr. Wt. Per Foot
149	17ST	.348 lbs.	5951	61ST	.300 lbs.
588	53ST	.247 lbs.	6380	61ST	.787 lbs.
649	17ST	.376 lbs.	6594	61ST	.563 lbs.
787	17ST	.433 lbs.	7088	61ST	1.022 lbs.
793	61ST	1.630 lbs.	7374	61ST	.524 lbs.
892	61ST	1.669 lbs.	7427	61ST	4.018 lbs.
1730	17ST	.380 lbs.	8603	61ST	1.700 lbs.
2296	61ST	1.031 lbs.	8604	61ST	1.163 lbs.
4277	61ST	.918 lbs.	9003	53ST	.946 lbs.
4619	61ST	1.157 lbs.	9004	53ST	.533 lbs.
5137	61ST	.319 lbs.	9006	61ST	2.378 lbs.
5211	61ST	1.766 lbs.	9412	61ST	.943 lbs.
5527	61ST	.564 lbs.	10758	61ST	.369 lbs.
5899	61ST	1.884 lbs.			

# ● ALCOA ALUMINUM



## ROUND 2 S HALF HARD ALUMINUM TUBES

In 12-Foot Lengths

Outside Diam.	Wall Thickness Stubs' Gauge	Inside Diam.	Appr. Wt. Per Foot	Outside Diam.	Wall Thickness Stubs' Gauge	Inside Diam.	Appr. Wt. Per Foot
3/16" No. 24 (.022")		.143"	.013 lbs.	1" No. 16 (.065")		.870"	.222 lbs.
1/4" No. 20 (.035")		.180"	.027 lbs.	1 1/8" No. 20 (.035")		1.055"	.139 lbs.
1/4" No. 18 (.049")		.152"	.036 lbs.	1 1/8" No. 16 (.065")		.995"	.250 lbs.
1/4" No. 16 (.065")		.120"	.044 lbs.	1 1/4" No. 22 (.028")		1.194"	.125 lbs.
5/16" No. 24 (.022")		.268"	.023 lbs.	1 1/4" No. 20 (.035")		1.180"	.155 lbs.
5/16" No. 20 (.035")		.292"	.035 lbs.	1 1/4" No. 18 (.049")		1.152"	.210 lbs.
5/16" No. 18 (.049")		.214"	.047 lbs.	1 1/4" No. 16 (.065")		1.120"	.270 lbs.
5/16" No. 16 (.065")		.182"	.059 lbs.	1 1/4" No. 11 (.120")		1.010"	.440 lbs.
3/8" No. 22 (.028")		.319"	.036 lbs.	1 3/8" No. 22 (.028")		1.319"	.138 lbs.
3/8" No. 20 (.035")		.305"	.043 lbs.	1 3/8" No. 18 (.049")		1.277"	.240 lbs.
3/8" No. 18 (.049")		.277"	.058 lbs.	1 1/2" No. 20 (.035")		1.430"	.180 lbs.
3/8" No. 16 (.065")		.245"	.074 lbs.	1 1/2" No. 18 (.049")		1.402"	.260 lbs.
7/16" No. 22 (.028")		.381"	.042 lbs.	1 1/2" No. 16 (.065")		1.370"	.330 lbs.
7/16" No. 20 (.035")		.367"	.051 lbs.	1 3/4" No. 22 (.028")		1.694"	.178 lbs.
1/2" No. 24 (.022")		.456"	.038 lbs.	1 3/4" No. 20 (.035")		1.680"	.210 lbs.
1/2" No. 22 (.028")		.444"	.049 lbs.	1 3/4" No. 18 (.049")		1.652"	.300 lbs.
1/2" No. 20 (.035")		.430"	.059 lbs.	1 3/4" No. 16 (.065")		1.620"	.390 lbs.
1/2" No. 18 (.049")		.402"	.080 lbs.	2" No. 20 (.035")		1.930"	.250 lbs.
1/2" No. 16 (.065")		.370"	.104 lbs.	2" No. 18 (.049")		1.902"	.350 lbs.
5/8" No. 22 (.028")		.569"	.061 lbs.	2" No. 16 (.065")		1.870"	.450 lbs.
5/8" No. 20 (.035")		.555"	.075 lbs.	2 1/4" No. 20 (.035")		2.180"	.280 lbs.
5/8" No. 18 (.049")		.527"	.103 lbs.	2 1/2" No. 20 (.035")		2.402"	.310 lbs.
5/8" No. 16 (.065")		.495"	.133 lbs.	2 1/2" No. 16 (.065")		2.370"	.570 lbs.
3/4" No. 20 (.035")		.680"	.091 lbs.	2 3/4" No. 16 (.065")		2.620"	.630 lbs.
3/4" No. 18 (.049")		.652"	.125 lbs.	3" No. 16 (.065")		2.870"	.690 lbs.
3/4" No. 16 (.065")		.620"	.163 lbs.	3 1/2" No. 16 (.065")		3.370"	.810 lbs.
7/8" No. 20 (.035")		.805"	.107 lbs.	4" No. 18 (.049")		3.902"	.710 lbs.
7/8" No. 18 (.049")		.777"	.147 lbs.	4" No. 16 (.065")		3.870"	.930 lbs.
7/8" No. 16 (.065")		.745"	.193 lbs.	4" No. 11 (.120")		3.760"	1.700 lbs.
1" No. 20 (.035")		.930"	.123 lbs.	5" No. 16 (.065")		4.870"	1.170 lbs.
1" No. 18 (.049")		.902"	.170 lbs.	5" No. 11 (.120")		4.760"	2.140 lbs.

## ROUND 2 S SOFT ALUMINUM TUBES

In 12-Foot Lengths

Outside Diam.	Wall Thickness Stubs' Gauge	Inside Diam.	Appr. Wt. Per Foot	Outside Diam.	Wall Thickness Stubs' Gauge	Inside Diam.	Appr. Wt. Per Foot
3/16" No. 20 (.035")		.117"	.019 lbs.	1 1/2" No. 20 (.035")		.430"	.059 lbs.
1/4" No. 20 (.035")		.180"	.027 lbs.	5/8" No. 20 (.035")		.555"	.075 lbs.
5/16" No. 20 (.035")		.242"	.035 lbs.	3/4" No. 20 (.035")		.680"	.091 lbs.
3/8" No. 20 (.035")		.305"	.043 lbs.	1" No. 20 (.035")		.930"	.123 lbs.





# ALCOA ALUMINUM •

TUBES

## ROUND 3 S SOFT ALUMINUM TUBES

In Random Coils 20 to 50 Feet

Outside Diam.	Wall Thickness Stubs' Gauge	Appr. Wt. Per Foot	Outside Diam.	Wall Thickness Stubs' Gauge	Appr. Wt. Per Foot
3/8"	No. 20 (.035")	.043 lbs.	1/2"	No. 18 (.049")	.080 lbs.
3/8"	No. 18 (.049")	.058 lbs.	5/8"	No. 18 (.049")	.103 lbs.

## ROUND 3 S HARD ALUMINUM TUBES

In 12-Foot Lengths

Outside Diam.	Wall Thickness Stubs' Gauge	Inside Diam.	Appr. Wt. Per Foot	Outside Diam.	Wall Thickness Stubs' Gauge	Inside Diam.	Appr. Wt. Per Foot
3/16"	No. 20 (.035")	.117"	.019 lbs.	1 1/4"	No. 11 (.120")	1.010"	.440 lbs.
1/4"	No. 20 (.035")	.180"	.027 lbs.	1 1/2"	No. 18 (.049")	1.402"	.260 lbs.
5/16"	No. 20 (.035")	.242"	.035 lbs.	1 1/2"	No. 16 (.065")	1.370"	.260 lbs.
3/8"	No. 20 (.035")	.305"	.043 lbs.	1 1/2"	No. 11 (.120")	1.310"	.600 lbs.
3/8"	No. 18 (.049")	.277"	.058 lbs.	1 3/4"	No. 16 (.065")	1.620"	.390 lbs.
1/2"	No. 20 (.035")	.430"	.059 lbs.	*2"	No. 21 (.032")	1.936"	.230 lbs.
5/8"	No. 20 (.035")	.555"	.075 lbs.	2"	No. 16 (.065")	1.870"	.450 lbs.
3/4"	No. 20 (.035")	.680"	.091 lbs.	2"	No. 11 (.120")	1.760"	.820 lbs.
3/4"	No. 18 (.049")	.652"	.125 lbs.	2 1/4"	No. 16 (.065")	2.120"	.510 lbs.
7/8"	No. 18 (.049")	.865"	.147 lbs.	2 1/4"	No. 11 (.120")	2.010"	.930 lbs.
1"	No. 20 (.035")	.930"	.123 lbs.	2 1/2"	No. 16 (.065")	2.370"	.570 lbs.
1"	No. 16 (.065")	.870"	.222 lbs.	2 1/2"	No. 11 (.120")	2.310"	1.040 lbs.
1"	No. 11 (.120")	.760"	.380 lbs.	3"	No. 16 (.065")	2.870"	.690 lbs.
1 1/4"	No. 20 (.035")	1.180"	.155 lbs.	3"	No. 11 (.120")	2.760"	1.260 lbs.
1 1/4"	No. 16 (.065")	1.120"	.270 lbs.	3 1/2"	No. 16 (.065")	3.370"	.810 lbs.

\* Carried in 20-foot lengths also.

## ROUND 17 S-T ALUMINUM TUBES

HIGH STRENGTH ALLOY

In 12-Foot Lengths

Outside Diam.	Wall Thickness Stubs' Gauge	Inside Diam.	Appr. Wt. Per Foot	Outside Diam.	Wall Thickness Stubs' Gauge	Inside Diam.	Appr. Wt. Per Foot
1/4"	No. 20 (.035")	.180"	.028 lbs.	3/4"	No. 16 (.065")	.620"	.168 lbs.
5/16"	No. 20 (.035")	.242"	.036 lbs.	7/8"	No. 20 (.035")	.805"	.110 lbs.
5/16"	No. 16 (.065")	.182"	.061 lbs.	7/8"	No. 18 (.049")	.777"	.155 lbs.
3/8"	No. 20 (.035")	.305"	.044 lbs.	7/8"	No. 16 (.065")	.745"	.203 lbs.
3/8"	No. 18 (.049")	.277"	.060 lbs.	1"	No. 20 (.035")	.930"	.127 lbs.
3/8"	No. 16 (.065")	.245"	.076 lbs.	1"	No. 18 (.049")	.902"	.175 lbs.
1/2"	No. 20 (.035")	.430"	.061 lbs.	1"	No. 16 (.065")	.870"	.229 lbs.
1/2"	No. 18 (.049")	.402"	.082 lbs.	1"	No. 11 (.120")	.760"	.410 lbs.
1/2"	No. 16 (.065")	.370"	.107 lbs.	1 1/4"	No. 20 (.035")	1.180"	.160 lbs.
5/8"	No. 20 (.035")	.555"	.077 lbs.	1 1/4"	No. 18 (.049")	1.152"	.216 lbs.
5/8"	No. 18 (.049")	.527"	.106 lbs.	1 1/4"	No. 16 (.065")	1.120"	.278 lbs.
5/8"	No. 16 (.065")	.495"	.137 lbs.	1 1/4"	No. 11 (.120")	1.010"	.520 lbs.
3/4"	No. 20 (.035")	.680"	.093 lbs.	1 3/8"	No. 18 (.049")	1.277"	.247 lbs.
3/4"	No. 18 (.049")	.652"	.129 lbs.	1 1/2"	No. 18 (.049")	1.402"	.268 lbs.

(Continued on next page)

# • ALCOA ALUMINUM



## ROUND 17 S-T ALUMINUM TUBES—(Cont.)

### HIGH STRENGTH ALLOY

In 12-Foot Lengths				In 12-Foot Lengths			
Outside Diam.	Wall Thickness Stub's Gauge	Inside Diam.	Appr. Wt. Per Foot	Outside Diam.	Wall Thickness Stub's Gauge	Inside Diam.	Appr. Wt. Per Foot
1½" No. 16 (.065")		1.370"	.340 lbs.	2¼" No. 16 (.065")		2.120"	.540 lbs.
1½" No. 11 (.120")		1.260"	.630 lbs.	2¼" No. 11 (.120")		2.010"	.950 lbs.
1⅝" No. 18 (.049")		1.527"	.297 lbs.	2½" No. 16 (.065")		2.370"	.587 lbs.
1¾" No. 16 (.065")		1.620"	.401 lbs.	3" No. 16 (.065")		2.870"	.711 lbs.
2" No. 16 (.065")		1.870"	.464 lbs.	3" No. 11 (.120")		2.760"	1.300 lbs.
2" No. 11 (.120")		1.760"	.870 lbs.				

## ROUND 24 S-T ALUMINUM TUBES

In Standard 12-Foot Lengths				In Standard 12-Foot Lengths			
Outside Diam.	Wall Thickness Stub's Gauge	Inside Diam.	Appr. Wt. Per Foot	Outside Diam.	Wall Thickness Stub's Gauge	Length of Coil	Appr. Wt. Per Foot
¼" No. 20 (.035")		.180"	.028 lbs.	1¼" No. 20 (.035")		1.180"	.160 lbs.
½" No. 20 (.035")		.430"	.061 lbs.	1¼" No. 18 (.049")		1.152"	.216 lbs.
⅝" No. 20 (.035")		.555"	.077 lbs.	1¼" No. 16 (.065")		1.120"	.278 lbs.
¾" No. 20 (.035")		.680"	.094 lbs.	1½" No. 18 (.049")		1.402"	.268 lbs.
¾" No. 18 (.049")		.652"	.129 lbs.	1¾" No. 18 (.049")		1.652"	.303 lbs.
1" No. 20 (.035")		.930"	.127 lbs.	2" No. 17 (.058")		1.884"	.410 lbs.
1" No. 18 (.049")		.902"	.175 lbs.	2" No. 16 (.065")		1.870"	.464 lbs.

## ROUND 52 S SOFT ALUMINUM TUBES

In Standard 12-Foot Lengths—Ground Outside Finish				In Standard 12-Foot Lengths—Ground Outside Finish			
Outside Diam.	Wall Thickness Stub's Gauge	Inside Diam.	Appr. Wt. Per Foot	Outside Diam.	Wall Thickness Stub's Gauge	Inside Diam.	Appr. Wt. Per Foot
⅜" No. 21 (.032")		.123"	.018 lbs.	⅝" No. 19 (.042")		.541"	.089 lbs.
¼" No. 21 (.032")		.186"	.025 lbs.	⅝" No. 18 (.049")		.527"	.103 lbs.
⅝" No. 21 (.032")		.248"	.032 lbs.	¾" No. 18 (.049")		.652"	.125 lbs.
¾" No. 21 (.032")		.311"	.040 lbs.	1" No. 18 (.049")		.902"	.170 lbs.
7/16" No. 19 (.042")		.353"	.061 lbs.	1¼" No. 18 (.049")		1.152"	.210 lbs.
½" No. 19 (.042")		.416"	.070 lbs.				

## ROUND 53 S-O ALUMINUM TUBES

In 50 Foot Coils				In 50 Foot Coils			
Outside Diam.	Wall Thickness Stub's Gauge	Inside Diam.	Appr. Wt. Per Foot	Outside Diam.	Wall Thickness Stub's Gauge	Inside Diam.	Appr. Wt. Per Foot
½" No. 16 (.065")		.370"	.104 lbs.	⅝" No. 16 (.065")		.495"	.133 lbs.

## RECTANGULAR 53 S ALUMINUM TUBES

In 16-Foot Lengths			In 16-Foot Lengths		
Outside Dimensions	Wall Thickness	Appr. Wt. Per Foot	Outside Dimensions	Wall Thickness	Appr. Wt. Per Foot
½" x 1"	.078"	.252 lbs.	1¾" x 3"	.093"	1.019 lbs.
¾" x 1½"	.078"	.392 lbs.	1¾" x 3½"	.125"	1.500 lbs.
1" x 1½"	.078"	.439 lbs.	1¾" x 4"	.125"	1.650 lbs.
1" x 2"	.083"	.564 lbs.	1¾" x 4½"	.125"	1.800 lbs.
1¼" x 2½"	.083"	.714 lbs.	1¾" x 5"	.125"	1.950 lbs.
1½" x 2"	.078"	.626 lbs.	2" x 3"	.125"	1.426 lbs.





# ALCOA ALUMINUM •

## SQUARE 53 S ALUMINUM TUBES

Outside Dimensions	Wall Thickness	In 16-Foot Lengths		Wall Thickness	Appr. Wt. Per Foot
		Outside Dimensions	Appr. Wt. Per Foot		
1/2" x 1/2"	.062"	1/2" x 1/2"	.131 lbs.	.062"	.428 lbs.
3/4" x 3/4"	.062"	3/4" x 3/4"	.205 lbs.	.062"	.502 lbs.
1" x 1"	.062"	2" x 2"	.279 lbs.	.062"	.577 lbs.
1 1/4" x 1 1/4"	.062"	2 1/2" x 2 1/2"	.354 lbs.	.125"	1.424 lbs.

## 3 S HALF HARD ALUMINUM PIPE STANDARD PIPE SIZES

Size I. P. S.	Wall Thickness	In Standard 12-Foot Lengths		Appr. Wt. Per Foot
		Outside Diameter	Inside Diameter	
* 1/8"	.068"	.405"	.269"	.084 lbs.
* 1/4"	.088"	.540"	.364"	.147 lbs.
* 3/8"	.091"	.675"	.493"	.196 lbs.
* 1/2"	.109"	.840"	.622"	.294 lbs.
* 3/4"	.113"	1.050"	.824"	.390 lbs.
* 1"	.133"	1.315"	1.049"	.580 lbs.
* 1 1/4"	.140"	1.660"	1.380"	.785 lbs.
* 1 1/2"	.145"	1.900"	1.610"	.939 lbs.
* 2"	.154"	2.375"	2.067"	1.262 lbs.
* 2 1/2"	.203"	2.875"	2.469"	2.002 lbs.
* 3"	.216"	3.500"	3.068"	2.617 lbs.
3 1/2"	.226"	4.000"	3.548"	3.147 lbs.
* 4"	.237"	4.500"	4.026"	3.729 lbs.
5"	.258"	5.563"	5.047"	5.051 lbs.
6"	.280"	6.625"	6.065"	6.556 lbs.

\* These sizes also carried in 2 S Hard Alloys in our Buffalo warehouse

## EXTRA HEAVY PIPE SIZE

Size I. P. S.	Wall Thickness	In 12-Foot Lengths		Appr. Wt. Per Foot
		Outside Diameter	Inside Diameter	
1/8"	.095"	.405"	.215"	.109 lbs.
1/4"	.119"	.540"	.302"	.185 lbs.
3/8"	.126"	.675"	.423"	.255 lbs.
1/2"	.147"	.840"	.546"	.376 lbs.
3/4"	.154"	1.050"	.742"	.509 lbs.
1"	.179"	1.315"	.957"	.750 lbs.
1 1/4"	.191"	1.660"	1.278"	1.035 lbs.
1 1/2"	.200"	1.990"	1.500"	1.254 lbs.
2"	.218"	2.375"	1.939"	1.735 lbs.
2 1/2"	.276"	2.875"	2.323"	2.647 lbs.
3"	.300"	3.500"	2.900"	3.543 lbs.



# ● ALCOA ALUMINUM



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## ALCOA ALUMINUM THREAD LUBRICANT IN 8-OZ. JARS

### THREADED CAST ALUMINUM PIPE FITTINGS

For Standard Pipe Sizes

#### BUSHINGS

1/2" x 3/8"	1" x 1/2"	1 1/4" x 1"	1 1/2" x 1"	2" x 1"	2" x 1 1/2"
1/2" x 1/4"	3/4" x 1/2"	1" x 3/4"	1 1/2" x 3/4"	1 1/2" x 1 1/4"	2 1/2" x 2"
3/8" x 1/4"					

#### CAPS

1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"
------	------	------	------	----	--------	--------	----	--------

#### COUPLINGS

1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
------	------	------	------	------	----	--------	--------	----	--------	----

#### CROSSES

3/4"		1"				1 1/2"		2"
------	--	----	--	--	--	--------	--	----

#### 90° ELBOWS

1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
------	------	------	------	----	--------	--------	----	--------	----

#### 45° ELBOWS

1/8"	1/4"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
------	------	------	------	----	--------	--------	----	--------	----

#### FLANGES (Faced and Drilled)

3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"
------	----	--------	--------	----	--------

#### LOCKNUTS

1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
------	------	----	--------	--------	----

#### PLUGS

1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
------	------	------	------	----	--------	--------	----	--------	----

#### REGULAR NIPPLES & CLOSE NIPPLES

Any size can be furnished from stock up to 3" I.P.S.

#### SCREW UNIONS

1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	3"
------	------	------	------	----	--------	--------	----	----

#### TEES

1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
------	------	------	------	----	--------	--------	----	--------	----

#### GATE VALVES

Stainless Steel Stem and Disc

3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
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### 3 S ALUMINUM RIGID CONDUIT

In Standard 10-Foot Lengths

Electrical Trade Size	Nominal Outside Diameter	Nominal Inside Diameter	Appr. Weight Per Foot
1/2"	.840"	.622"	.293 lbs.
3/4"	1.050"	.824"	.393 lbs.
1"	1.315"	1.049"	.585 lbs.

Threaded both ends—Standard coupling one end.



# ALCOA ALUMINUM •

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## ALUMINUM WIRE

In Coils

Commercially Pure and High Strength Alloys

\*Asterisk Indicates Size Available in Each Alloy

Size in Decimals	Approx. Weight Per 1000 Feet	Alloys Carried				
		2SH	2SO	2S½H	3S½H	17S
.032"	.9 lbs.	*	*	—	—	—
.040"	1.5 lbs.	—	*	—	—	—
.051"	2.3 lbs.	*	*	—	—	—
.064"	3.8 lbs.	*	*	*	—	—
.081"	6.0 lbs.	—	*	*	—	—
.091"	7.6 lbs.	—	*	*	—	*
.101"	9.5 lbs.	—	—	*	—	—
.102"	9.7 lbs.	—	*	—	—	—
.105"	10.1 lbs.	—	—	—	—	*
.114"	12.1 lbs.	—	—	—	—	*
.123"	13.5 lbs.	—	—	*	—	*
.125"	14.5 lbs.	*	*	—	—	—
.138"	17.0 lbs.	—	—	*	—	—
.140"	18.2 lbs.	—	—	—	—	*
.153"	20.4 lbs.	—	—	*	—	—
.156"	22.5 lbs.	—	*	—	—	*
.162"	24.2 lbs.	—	—	*	*	—
.165"	25.5 lbs.	—	—	—	—	*
.184"	31.5 lbs.	—	—	*	*	*
.187"	32.4 lbs.	*	*	—	—	—
.200"	37.0 lbs.	—	—	*	—	—
.212"	41.4 lbs.	—	—	—	—	*
.247"	55.7 lbs.	—	—	*	—	*
.250"	57.7 lbs.	*	*	—	—	—
.310"	89.1 lbs.	—	—	*	—	—
.312"	90.1 lbs.	—	*	—	—	—
.372"	126.3 lbs.	—	—	*	—	—
.375"	129.7 lbs.	—	*	—	—	—

<sup>1</sup> For weight of 17 S, multiply the above weight by 1.03.

Symbols: H = Hard Temper. ½ H = Half Hard. O = Soft.

Items in 2 S ½ H and 17 S are especially adaptable to the manufacture of rivets.

Sizes .032—2 SH put up in 10 lb. spools—.032—2 SO in 5 and 10 lb. spools—.040—2 SO in 5 lb. spools.

## ALUMINUM WELDING WIRE

In Coils and Straight Lengths

See Welding and Soldering Section, Page 197.

# • ALCOA ALUMINUM



ACCESSORIES

## 2 S ALUMINUM RIVETS

(Commercially Pure)  
In One Pound Boxes

### ROUND HEAD SIZES

In Lengths of

Diameter															
1/16"	3/32"	1/8"	3/16"	1/4"	5/16"	3/8"	—	1/2"							
3/32"	—	1/8"	3/16"	1/4"	5/16"	3/8"	—	1/2"	5/8"	3/4"	—	1"			
1/8"	—	—	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	
5/32"	—	—	3/16"	1/4"	5/16"	3/8"	—	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"		
3/16"	—	—	—	1/4"	5/16"	3/8"	—	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	
1/4"	—	—	—	—	5/16"	3/8"	—	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	2"
5/16"	—	—	—	—	—	3/8"	—	1/2"	5/8"	3/4"	—	1"	1 1/4"	1 1/2"	2"
3/8"	—	—	—	—	—	—	—	—	3/4"	—	—	1"	1 1/4"	1 1/2"	2"

### COUNTERSUNK HEAD SIZES

In Lengths of

Diameter												
3/32"	3/16"	1/4"	5/16"									
1/8"	—	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	—	1"			
3/16"	—	—	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	—
1/4"	—	—	—	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	2"
5/16"	—	—	—	—	1/2"	5/8"	3/4"	—	1"	1 1/4"	1 1/2"	2"
3/8"	—	—	—	—	—	—	3/4"	—	1"	1 1/4"	1 1/2"	2"

### FLAT HEAD SIZES

In Lengths of

Diameter										
3/32"	3/16"	1/4"	5/16"	3/8"						
1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"		
5/32"	—	1/4"	5/16"	3/8"	1/2"					
3/16"	—	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"		
1/4"	—	—	—	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	

### BRAZIER HEAD SIZES

In Lengths of

Diameter												
3/32"	3/16"	1/4"	5/16"	3/8"	1/2"							
1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"				
5/32"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"				
3/16"	—	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"			
1/4"	—	—	—	—	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"		

For Weights of Rivets See Pages 235-236.





# ALCOA ALUMINUM •

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## 2 S ALUMINUM RIVETS (Cont.)

### TINNERS' (FLAT HEAD) SIZES

Trade Size	Diameter	Lengths	Trade Size	Diameter	Lengths
3/4 lb.	.105"	3/16"	4 lb.	.176"	11/32"
1 lb.	.111"	13/64"	5 lb.	.186"	3/8"
1 1/4 lb.	.120"	7/32"	6 lb.	.203"	25/64"
1 1/2 lb.	.130"	15/64"	8 lb.	.224"	7/16"
2 lb.	.144"	15/64"	10 lb.	.238"	15/32"
2 1/2 lb.	.148"	9/32"	12 lb.	.259"	1/2"
3 lb.	.160"	5/16"			

## 2 S ALUMINUM BRAKE BAND RIVETS

Semi-Tubular  
For Brake Linings  
In Boxes of 1000 Rivets  
Prompt Shipment

Standard Number	Dia. of Body	Size of Head	Lengths	Standard Number	Dia. of Body	Size of Head	Lengths
4-4	9/64"	5/16"	4/16"	7-6	3/16"	3/8"	6/16"
4-5	9/64"	5/16"	5/16"	7-7	3/16"	3/8"	7/16"
4-6	9/64"	5/16"	6/16"	7-8	3/16"	3/8"	8/16"
4-7	9/64"	5/16"	7/16"	7-10	3/16"	3/8"	10/16"
4-8	9/64"	5/16"	8/16"	7-12	3/16"	3/8"	12/16"
5-4	9/64"	3/8"	4/16"	7-14	3/16"	3/8"	14/16"
5-5	9/64"	3/8"	5/16"	7-16	3/16"	3/8"	16/16"
5-6	9/64"	3/8"	6/16"	8-6	3/16"	1/2"	6/16"
5-7	9/64"	3/8"	7/16"	8-8	3/16"	1/2"	8/16"
5-8	9/64"	3/8"	8/16"	8-10	3/16"	1/2"	10/16"
5-10	9/64"	3/8"	10/16"	8-12	3/16"	1/2"	12/16"
5-12	9/64"	3/8"	12/16"	8-14	3/16"	1/2"	14/16"
7-4	3/16"	3/8"	4/16"	8-16	3/16"	1/2"	16/16"
7-5	3/16"	3/8"	5/16"				

## 17 S ALUMINUM RIVETS

High Strength Alloy

Not Treated

In One Pound Boxes

### ROUND HEAD AND BRAZIER HEAD SIZES

In Lengths of

Diameter										
3/32"	3/16"	1/4"	5/16"	3/8"	1/2"					
1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"		
5/32"	—	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"		
3/16"	—	—	—	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	
1/4"	—	—	—	—	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"

For Weights of Rivets See Pages 235-236

# • ALCOA ALUMINUM



## 17 S ALUMINUM RIVETS (Cont.)

### COUNTERSUNK HEAD SIZES

In Lengths of

Diameter						
1/8"	—	3/8"	1/2"	5/8"	3/4"	1"
5/32"	—	—	1/2"	5/8"	3/4"	—
3/16"	—	3/8"	1/2"	5/8"	3/4"	1"
1/4"	—	—	1/2"	5/8"	3/4"	1" 1 1/4" 1 1/2"

## A17 S-T ALUMINUM RIVETS

High Strength Alloy

Heat Treated

In One Pound Boxes

### ROUND HEAD AND BRAZIER HEAD SIZES

In Lengths of

Diameter										
3/32"	3/16"	1/4"	5/16"	3/8"	—	1/2"	5/8"	3/4"	—	—
1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	1"	—
5/32"	—	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	1"	1 1/4"
3/16"	—	—	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	1"	1 1/4" 1 1/2"
1/4"	—	—	—	—	—	1/2"	5/8"	3/4"	1"	1 1/4" 1 1/2"

### COUNTERSUNK HEAD SIZES

In Lengths of

Diameter								
3/32"	3/16"	1/4"	5/16"	3/8"	—	1/2"	—	—
1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"
5/32"	—	—	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"
3/16"	—	—	—	3/8"	7/16"	1/2"	5/8"	3/4" 1"
1/4"	—	—	—	—	—	—	—	3/4" —

## 17 S-T ALUMINUM RIVETS

In One Pound Boxes

### ROUND HEAD AND BRAZIER HEAD SIZES

In Lengths of

Diameter								
3/32"	3/16"	1/4"	5/16"	3/8"	1/2"	—	—	—
1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	—
5/32"	—	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"
3/16"	—	—	5/16"	3/8"	1/2"	5/8"	3/4"	1" 1 1/4" 1 1/2"
1/4"	—	—	—	—	1/2"	5/8"	3/4"	1" 1 1/4" 1 1/2"

For weights of Rivets see pages 235-236



# ALCOA ALUMINUM •

## 17S-T ALUMINUM RIVETS (Cont.)

### COUNTERSUNK HEAD SIZES

Diameter	In Lengths of									
3/32"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"			
1/8"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"			
5/32"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"			
3/16"	—	—	—	1/2"	5/8"	3/4"	1"			
1/4"	—	—	—	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	

## 53 S-W ALUMINUM RIVETS

In One Pound Boxes

### BUTTON HEAD SIZES

Diameter	In Lengths of									
1/8"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"		
5/32"	—	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"		
3/16"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	
1/4"	—	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	
5/16"	—	—	—	—	3/4"	—	1"	1 1/4"	1 1/2"	2"
3/8"	—	—	—	—	—	—	1"	1 1/4"	1 1/2"	2"

For weights of Aluminum Rivets See pages 235-236.

**A booklet especially prepared on the subject of riveting will be sent upon request. Ask for "The Riveting of Aluminum."**

## 24 S-T ALUMINUM MACHINE SCREWS

### High Strength Alloy

Upset Heads—Rolled Threads

American National Standard Coarse Threads  
(\*Fine Threads)

Bright Finish

In One Gross Boxes

### ROUND HEAD AND FLAT HEAD SIZES

Diameter	In Lengths of									
4/40	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"		
6/32	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"
8/32	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"
*10/32	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"
10/24	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"
12/24	—	5/16"	3/8"	1/2"	5/8"	3/4"	—	1"	1 1/4"	1 1/2"
1/4—20	—	5/16"	3/8"	1/2"	5/8"	3/4"	—	1"	1 1/4"	1 1/2"
5/16—18	—	—	—	1/2"	5/8"	3/4"	—	1"	1 1/4"	1 1/2"
3/8—16	—	—	—	1/2"	5/8"	3/4"	—	1"	1 1/4"	1 1/2"

\* Fine Thread.

**STOCK SHIPMENTS FOR ECONOMY**



# ● ALCOA ALUMINUM



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## 24 S-T ALUMINUM MACHINE SCREWS (Cont.)

### OVAL (COUNTERSUNK) HEAD SIZES

In Lengths of

Diameter											
6/32	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	2"
8/32	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	2"
*10/32	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	2"
10/24	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	2"
12/24	—	—	3/8"	1/2"	5/8"	3/4"	—	1"	1 1/4"	1 1/2"	2"
1/4—20	—	—	3/8"	1/2"	5/8"	3/4"	—	1"	1 1/4"	1 1/2"	2"
5/16—18	—	—	—	1/2"	5/8"	3/4"	—	1"	1 1/4"	1 1/2"	2"

### OVAL FILLISTER HEAD SIZES

In Lengths of

Diameter											
4/40	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"			
6/32	—	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"			
8/32	—	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	
*10/32	—	—	—	3/8"	1/2"	5/8"	3/4"	1"			
10/24	—	—	—	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	
12/24	—	—	—	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"
1/4—20	—	—	—	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"
5/16—18	—	—	—	—	—	—	3/4"	1"	1 1/4"	1 1/2"	2"

### JACKSON (ARCHITECTURAL) HEAD SIZES

In Lengths of

Diameter											
6/32	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	
8/32	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	
*10/32	1/4"	—	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	
10/24	—	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	
12/24	—	—	3/8"	1/2"	5/8"	3/4"	1"	—	1 1/2"	2"	
1/4—20	—	—	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	
5/16—18	—	—	—	—	—	3/4"	1"	—	1 1/2"	2"	

### TRUSS (AIRCRAFT) HEAD SIZES

### BUTTON (TRUSS) HEAD AIRCRAFT SIZES

In Lengths of

Diameter								
6/32	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	1"
8/32	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	1"
*10/32	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	1"

\* Fine Thread.



# ALCOA ALUMINUM •

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## LONG LENGTH SCREWS

The following sizes can be shipped promptly:

### ROUND HEAD AND FLAT HEAD SIZES

Diameters: 6/32, 8/32, 10/32, 10/24, 1/4-20, 5/16-18, 3/8-16.

Lengths of: 2 1/4", 2 1/2", 2 3/4" and 3".

### FINISHING (DOUBLE HEAD) TYPE

Carried in certain sizes only—Consult us

## 53 S-T ALUMINUM MACHINE SCREWS

(Especially adapted for Rayon Industry)

Available for Prompt Shipment

## 17 S-T ALUMINUM WOOD SCREWS

High Strength Alloy

American National Standard

Bright Finish

In One Gross Boxes

### FLAT HEAD SIZES

In Lengths of

Diameter										
No. 2	1 1/2"	5/8"								
No. 3	1 1/2"	5/8"	3/4"							
No. 4	1 1/2"	5/8"	3/4"							
No. 5	1 1/2"	5/8"	3/4"	1"						
No. 6	1 1/2"	5/8"	3/4"	1"	1 1/4"					
No. 7	1 1/2"	5/8"	3/4"	1"	1 1/4"					
No. 8	—	5/8"	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"		
No. 9	—	—	3/4"	1"	1 1/4"	1 1/2"				
No. 10	—	—	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	
No. 12	—	—	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	
No. 14	—	—	—	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	3"
No. 16	—	—	—	—	—	—	—	2"	2 1/2"	3"

### ROUND HEAD SIZES

In Lengths of

Diameter										
No. 3	3/8"	1/2"								
No. 4	—	1/2"	5/8"	3/4"						
No. 6	—	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"			
No. 8	—	—	5/8"	3/4"	1"	1 1/4"	1 1/2"			
No. 10	—	—	—	—	1"	1 1/4"	1 1/2"	2"		
No. 12	—	—	—	—	1"	1 1/4"	1 1/2"	2"		
No. 14	—	—	—	—	1"	1 1/4"	1 1/2"	2"	3"	

# ● ALCOA ALUMINUM



## 17 S-T ALUMINUM WOOD SCREWS (Cont.)

### OVAL (COUNTERSUNK) HEAD SIZES

In Lengths of

Diameter								
No. 4	1/2"	5/8"	3/4"	7/8"	1"			
No. 5	1/2"	5/8"	3/4"	7/8"	1"			
No. 6	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	
No. 7	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	
No. 8	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	2"
No. 10	—	—	3/4"	—	1"	1 1/4"	1 1/2"	2"
No. 12	—	—	—	—	1"	1 1/4"	1 1/2"	2"
No. 14	—	—	—	—	—	1 1/4"	1 1/2"	2"

## 17 S-T ALUMINUM LAG SCREWS

### High Strength Alloy

Square Head—Gimlet Point

Cut Threads

In Lengths of

Diameter								
1/4"	1"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	
5/16"	1"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	
3/8"	—	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"
1/2"	—	—	2"	2 1/2"	3"	3 1/2"	4"	5"

## 17 S-T ALUMINUM HANGER SCREWS

### High Strength Alloy

With Hexagon Nuts

Made to Order—Prompt Shipment

## 17 S-T ALUMINUM CAP SCREWS\*

### High Strength Alloy

Hexagon Head

American Standard

Coarse Threads

In Lengths of

Diameter									
1/4" -20	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	—	
5/16" -18	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	—	
3/8" -16	—	—	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
1/2" -13	—	—	—	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"

\*Flat Head, Round Head and Fillister Head Cap Screws can be furnished promptly. Sizes Not Listed or Fine Threads Made to Order.





# ALCOA ALUMINUM •

## 17 S-T ALUMINUM CHICAGO BINDING SCREWS

**High Strength Alloy**

Bright Finish

In Boxes of 1000 Pieces

**Regular Type**

Available for Prompt Shipment  
In Sizes of

1/4" 3/8" 1/2" 5/8" 3/4" 1" 1 1/4" 1 1/2" 1 3/4" 2" 2 1/2" 3" 3 1/2" 4"

### FULL EXPANSION TYPE

In Sizes of

1/2" 5/8" 3/4" 1" 1 1/4"

## 17 S-T ALUMINUM MACHINE BOLTS

**High Strength Alloy**

Hexagon Head with Hexagon Nut

American Standard  
In Lengths of

Diameter	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	3"	3 1/2"	4"
1/4" -20	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	3"	—	—	—	—	—	—
5/16" -18	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	3"	4"	—	—	—	—	—
3/8" -16	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	3"	4"	—	—	—	—	—
1/2" -13	—	1"	1 1/4"	1 1/2"	—	2"	2 1/2"	3"	4"	—	—	—	—	—
5/8" -11	—	—	1 1/4"	1 1/2"	—	2"	2 1/2"	3"	4"	—	—	—	—	—

Army-Navy (Aircraft) Standard Bolts are listed on page 00

## 17 S-T ALUMINUM CARRIAGE BOLTS

**High Strength Alloy**

Round Head and Square Neck with Hexagon Nut

American Standard  
In Lengths of

Diameter	1/2"	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/4"	2 1/2"	3"	3 1/2"	4"
1/4" -20	1/2"	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/4"	2 1/2"	3"	3 1/2"	4"
5/16" -18	—	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/4"	2 1/2"	3"	3 1/2"	4"
3/8" -16	—	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/4"	2 1/2"	3"	3 1/2"	4"
1/2" -13	—	—	—	—	1 1/2"	—	2"	—	2 1/2"	3"	3 1/2"	4"

## ALCOA ANTI-SEIZE COMPOUND

(OR OIL LUBRICANT)

Carried in stock in one-pound cans

## 17 S-T ALUMINUM STUD BOLTS AND THREADED RODS

With or Without Nuts or Washers

Made to order promptly from stock on hand

Diameters: 1/4" to 1"—U.S.S. Threads

Length: To suit your requirements

Studs or Rods can be threaded at one or both ends

Extra Large Sizes (1 1/8" to 4 1/2") also produced

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# • ALCOA ALUMINUM



## ALUMINUM STOVE BOLTS AND ALUMINUM CORNICE BOLTS

### High Strength Alloy

With Hexagon or Square Nuts  
American National Standard Coarse Threads

### ROUND HEAD AND FLAT HEAD

In Lengths of

Diameter									
3/16"-24	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	2"
1/4"-20	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	2"
5/16"-18	—	1/2"	5/8"	3/4"	—	1"	1 1/4"	1 1/2"	2"
3/8"-16	—	—	—	3/4"	—	1"	1 1/4"	1 1/2"	2"

## 17 S-T ALUMINUM HEXAGON NUTS

### High Strength Alloy

American Standard—Regular

Machine Finish

In Sizes of

1/4"-20	5/16"-18	3/8"-16	1/2"-13	5/8"-11	3/4"-10	7/8"-9	1"-8
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Army-Navy (Aircraft) Standard Bolts are listed on page 61.

## 53 S-T ALUMINUM HEXAGON NUTS

(Especially adapted for Rayon Industry)

Carried in Our Philadelphia Warehouse

In Sizes of

1/4"-20	5/16"-18	3/8"-16	1/2"-13	3/4"-10
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## 17 S-T ALUMINUM COTTER PINS

Are Available in Many Standard Sizes

## 24 S-T ALUMINUM MACHINE SCREW NUTS

### High Strength Alloy

American National Standard Coarse Threads

In One Gross Boxes

### HEXAGON SIZES

4/40	6/32	8/32	*10/32	10/24	12/24	1/4-20	5/16-18	3/8-16
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### SQUARE SIZES

10/24	1/4-20	5/16-18	3/8-16
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## 17 S-T ALUMINUM HEXAGON CAP NUTS

### High Strength Alloy

Also known as Acorn Nuts

American National Standard Coarse Threads

Bright Finish

In Sizes of

6/32	8/32	*10/32	10/24	1/4-20	5/16-18	3/8-16
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\* Fine Thread.

WHITEHEAD METAL PRODUCTS COMPANY, Inc.



# ALCOA ALUMINUM •

## 17 S-T ALUMINUM WING NUTS

High Strength Alloy

American National Standard Coarse Threads  
Bright Finish

In Sizes of

8/32 \*10/32 10/24 12/24 1/4-20 5/16-18 3/8-16

\*Fine Threads.

## ALUMINUM STOVE AND CORNICE BOLT NUTS

High Strength Alloy

American National Standard Coarse Threads

HEXAGON AND SQUARE SIZES

3/16" 1/4" 5/16" 3/8"

## 17 S-T ALUMINUM WASHERS

High Strength Alloy

STANDARD SIZES

Bolt or Rod Diameter	Screw Size	Outside Diameter	Inside Diameter	Thickness
—	No. 3	1/4"	.112"	.020"
—	No. 4	5/16"	.140"	.025"
1/8"	No. 6	3/8"	.150"	.032"
5/32"	No. 8	7/16"	.170"	.036"
3/16"	No. 10	1/2"	.195"	.040"
3/16"	No. 10	1/2"	.195"	.040"
1/4"	1/4"	11/16"	.280"	.051"
5/16"	5/16"	7/8"	.343"	.064"
3/8"	3/8"	1"	.406"	.081"
1/2"	—	1 1/4"	9/16"	.091"
5/8"	—	1 1/2"	1 1/16"	.102"
3/4"	—	2"	1 3/16"	.114"

Army-Navy (Aircraft) Standard Washers are listed on page 62.

## 2 S ALUMINUM WASHERS

(Commercially Pure)

Carried in Our Philadelphia Warehouse

In Bolt Sizes of

1/4" 1/2"

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## ALUMINUM FINISHING WASHERS

Countersunk Type

Bright Finish

For use with Oval (countersunk) Head Wood Screws and Machine Screws.

In Sizes of

Nos. 6 8 10 12

## ALUMINUM INSECT SCREEN CLOTH

In 100 Foot Rolls

16 Mesh—.013" Wire

24" To 48" (Every Two Inches)

## AIRCRAFT STANDARD BOLTS, NUTS AND WASHERS

Available for Immediate Shipment

### "ALCOA" HEXAGON HEAD 24 S-T ALUMINUM BOLTS

Washer Faced—Bright Finish

Threaded Class 3—Medium Fit

Army-Navy (Aircraft) Standard

In Lengths of

Diameter  
& Threads

No. *10—32	3/8" to 2" by 1/8"s	2 1/4" to 3" by 1/4"s	3 1/2" and 4"
1/4"—28	1 1/2" to 2" by 1/8"s	2 1/4" to 3" by 1/4"s	3 1/2" and 4"
5/16"—24	5/8" to 2" by 1/8"s	2 1/4" to 3" by 1/4"s	3 1/2" and 4"
3/8"—24	1" to 2" by 1/8"s	2 1/4" to 3" by 1/4"s	3 1/2" and 4"
1/2"—20			

### "ALCOA" HEXAGON 24 S-T ALUMINUM NUTS

Machine Finish

Threaded Class 3—Medium Fit

Army-Navy (Aircraft) Standard—Drawing AN-315

In Sizes of

No. 6—32	1/4"—28	3/8"—24	1/2"—20
No. *10—32	5/16"—24	7/16"—20	5/8"—18

### "ALCOA" 24 S-T ALUMINUM CASTLE NUTS

Machine Finish

Threaded Class 3—Medium Fit

Army-Navy (Aircraft) Standard—Drawing AN-310

In Sizes of

No. *10—32	1/4"—28	3/8"—24	1/2"—20
	5/16"—24	7/16"—20	5/8"—18

\* Fine Thread.

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# ALCOA ALUMINUM •

## AIRCRAFT STANDARD BOLTS, ETC. (Cont.)

"ALCOA" 24 S-T ALUMINUM SHEAR NUTS  
Machine Finish

Threaded, Class 3—Medium Fit

Army-Navy (Aircraft) Standard—Drawing AN-320

In Sizes of

No. \*10—32      1/4"—28      5/16"—24      3/8"—24      1/2"—20

\* Fine Thread.

"ALCOA" PLAIN BLANKED WASHERS  
Machine Finish

Army-Navy (Aircraft) Standard—Drawing AN-960  
2 S-H—17 S-T and 24 S-T Regular Series

In Screw and Bolt Sizes of

Size	O. D.	I. D.	Thick	Size	O. D.	I. D.	Thick
No. 3	1/4"	7/64"	1/32"	7/16"	3/4"	29/64"	1/16"
No. 4	5/16"	1/8"	1/32"	1/2"	7/8"	33/64"	1/16"
No. 6	3/8"	9/64"	1/32"	9/16"	1 1/16"	37/64"	1/16"
No. 10	3/8"	11/64"	1/32"	5/8"	13/16"	41/64"	1/16"
1/4"	7/16"	13/64"	1/16"	3/4"	15/16"	49/64"	3/32"
5/16"	9/16"	17/64"	1/16"	7/8"	1 1/2"	57/64"	3/32"
3/8"	5/8"	21/64"	1/16"	1"	1 3/4"	11/64"	3/32"

Above Sizes Also Available in 2 S-H (Light Series) all 1/64" Thick.

## 17 S-T ALUMINUM WIRE NAILS

High Strength Alloy  
STANDARD COMMON NAILS

Size	Length	Gauge	Pieces Per Pound
2d	1"	No. 15 (.072")	Approx. 2575
3d	1 1/4"	No. 14 (.083")	" 1618
4d	1 1/2"	No. 12 1/2 (.098")	" 970
6d	2"	No. 11 1/2 (.114")	" 544
8d	2 1/2"	No. 10 1/4 (.131")	" 320
10d	3"	No. 9 (.148")	" 197
16d	3 1/2"	No. 8 (.162")	" 147
20d	4"	No. 6 (.192")	" 90
30d	4 1/2"	No. 5 (.207")	" 71
40d	5"	No. 4 (.225")	" 53

## SLATING NAILS

(Large Head)

Size	Length	Gauge	Pieces Per Pound
2d	1"	No. 12 (.105")	Approx. 1299
3d	1 1/4"	No. 10 1/2 (.128")	" 662
4d	1 1/2"	No. 10 1/2 (.128")	" 548
6d	2"	No. 9 (.148")	" 303

Extra Heavy Common Nails, Large Head Roofing Nails, Shingle Nails and Purlin Nails, also sizes not listed above made to order depending upon quantity.

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# ● ALCOA ALUMINUM



## 17 S-T ALUMINUM STORE FRONT NAILS

High Strength Alloy  
ROUND HEAD

Size—1¼" Long—No. 14 Gauge (.083")—Approx. 1300 per Pound

## 17 S-T ALUMINUM (SOLID) BALLS

High Strength Alloy  
Ground and Finished Very Close to Diameter  
In Diameters of

1/4"    5/16"    3/8"    7/16"    1/2"    5/8"    3/4"

Aluminum Balls for ornamental purposes where accuracy of diameter is not essential can be milled from Bar Stock promptly.

## 17 S-T ALUMINUM ESCUTCHEON PINS

High Strength Alloy  
ROUND HEAD

Produced in many standard or special sizes for prompt shipment—depending upon your specifications.

## ALUMINUM LITERATURE AVAILABLE

- "Alcoa Aluminum and Its Alloys"
- "Machining Aluminum"
- "Riveting of Aluminum"
- "Welding of Aluminum"
- "Aluminum in the Chemical Industry"
- "Aluminum Truck Body Materials"
- "Aluminum Screw Machine Products"
- "Methods of Bending Aluminum Tubing"
- "Finishes of Aluminum"
- "Aluminum Casting Alloys"

## WARRANTY OF SALE

All Aluminum goods sold by us are warranted to be free from defects in material and workmanship, but this express warranty is in lieu of and excludes all other warranties. Defective material may be returned to us after inspection by us and upon receipt of definite shipping instructions from us. Goods so returned will be replaced or repaired without charge, but we shall not be liable for loss or damage directly or indirectly arising from the use of the material or from any other cause, our liability being expressly limited to the replacement or repair of defective material, short weight or for any other cause and shall be deemed waived by you unless made in writing within sixty (60) days from the date of the shipment of goods to which such claim relates.





# BRASS

## SECTION



Includes

**YELLOW BRASS**

**"67" BRASS**

**RED "85" BRASS**

**SPRING BRASS**

**LOW BRASS**

**RICH LOW BRASS**

**MUNTZ METAL**

**In All Commercial Forms**



*Waterbury Mills of the American  
Brass Company, Waterbury, Conn.*

BRASS

ONZE

# BRASS SECTION

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<b>★ "67" Brass . . . . . 84</b>	<b>Low Brass . . . . . 86</b>
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★ Manufacture of "67" Brass discontinued by The American Brass Company to conserve Zinc for National Defense.

## CUTTING INFORMATION

Consistent with economical practice, we will cut stock sizes of Brass to your particular requirements within commercial limits and tolerances.

### Sawing

We are equipped to saw Brass Sheet up to 1" thick with a tolerance of 1/32" plus or minus. The tolerance on the square is 1/32" plus or minus in 3 feet or 1/16" in 6 feet.

### Shearing

We are equipped to shear Brass Sheets up to 144" in length and 3/16" in thickness with a tolerance of 1/32" plus or minus. Any length sheet over 144" can also be sheared with a 1/32" plus or minus tolerance, in thicknesses up to 7/8". On sheets over 144" however, the width of the sheet left after cutting must not exceed 18". We can shear 1/4" to 1/2" wide in 5' lengths; wider than 1/2" up to 144" long. For precision work, sheets should be sheared where possible 1/8" or 1/4" larger than required and machined to size by the customer.

We can cut Brass Circles from 8" to 50" in diameter in thicknesses up to .064. Circles 3" to 8" in diameter to .032

### Slitting

We are equipped to slit Brass in coils from 1/4" to 18" in width, in 1/64" increments with a tolerance of .003" plus or minus, in thicknesses up to No. 14 B&S Gauge. It can be wound on mandrels 4", 6" or 8" in diameter.

### Cutting and Threading

We are equipped to cut all sizes of Brass rod, tube and pipe. We can thread Brass rods from 3/8" to 1 1/4" in diameter and Brass pipe size tubing from 1/8" to 3".



# *Description* of stock ANACONDA METALS

ANACONDA METALS include Copper and Copper alloyed with Zinc, Tin, Nickel, Aluminum, Lead, Silicon, Manganese and other elements in all combinations where the resulting alloys can be manufactured in commercial forms. These various alloys are usually loosely grouped under the terms of Brass, Nickel Silver and the Bronzes.

## **COPPER**

Of all commercial metals, Copper has by far the highest electrical and thermal conductivity. It is immune to rust and highly resistant to most corroding agents; extremely ductile and malleable; has a high artistic value as a decorative material and may be readily worked hot or cold.

## **BRASS**

Brass is a term applied to a wide variety of Copper Alloys composed wholly or mainly of Copper and Zinc. Small amounts of other metals, such as Lead and Tin, are sometimes added to improve certain properties. Brass Alloys may be classified in four groups based upon their Copper content, in order: Commercial Bronze, Red Brass, Yellow Brass and Muntz Metal. In general it may be said of the entire series that corrosion resistance increases in proportion to the Copper content, and that strength, hardness and wearing qualities increase in proportion to the Zinc content. All of the alloys may be cold worked, those with about 70% Copper possessing the best physical properties when used for drawing or spinning. Alloys throughout the range may be hot worked; those with Copper content up to 65% and over 84% being adaptable to extensive hot working.

COMMERCIAL BRONZE 90% is an alloy of Copper and Zinc having excellent corrosion resistance from its Copper content but somewhat higher physical properties than Copper itself. It has excellent hot and cold working properties and is readily weldable.

RED BRASS, 85% due to its lower Copper content, has machining properties better than those of Commercial Bronze. It may be worked hot or cold and has welding characteristics similar to those of Commercial Bronze.

YELLOW BRASS 65% has excellent cold working properties and fair hot working properties. Its machinability is slightly better than Red Brass. It may be readily welded by the oxy-acetylene process and resistance spot welded and seam welded.

# ANACONDA METALS •

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**MUNTZ METAL 60%** differs from Yellow Brass in appearance, being slightly reddish in color. It has excellent hot working qualities and a fair degree of workability cold. It is somewhat easier to machine than Yellow Brass. It can be oxy-acetylene welded but not readily welded by the arc resistant method.

**SPRING BRASS 72%** is a special Yellow Brass produced principally for high quality Brass springs. It has good corrosion resistance and high physical properties.

**LEADED BRASS 62%** is a Yellow Brass with a small percentage of Lead added to increase its machinability.

## NICKEL SILVER

**THE NICKEL SILVERS** are alloys composed of Copper, Nickel and Zinc in various proportions. These range in color from a soft ivory white in the low Nickel alloys to a brilliant silvery white in the higher Nickel alloys. The combination of extremely attractive color, beautiful lustre, durability and high resistance to general corrosion, coupled with ease of fabrication, count for its wide acceptance both for decorative and utilitarian purposes. Nickel Silver has a higher resistance to general corrosion than Brass containing an equal amount of Copper. The resistance to corrosion increases as the percentage of Nickel or Copper is increased. In general Nickel Silver is a highly malleable and ductile metal and can be worked almost as easily as Yellow Brass.

**AMBRAC** is a Nickel Silver Alloy with a high Nickel and Copper content. It was developed to meet the needs for an alloy having a bright Nickel appearance, exceptional resistance to general corrosion, and high strength, combined with a high degree of workability.

## THE BRONZES

**THE PHOSPHOR BRONZES** are commercially the most important of the Copper-Tin Alloys. Phosphor Bronze is a general term assigned to Copper-Tin alloys from which the oxides have been eliminated by the addition of Phosphorus. The component parts when correctly adjusted, produce a fine grain, homogeneous metal possessing high tensile strength, high elastic limits, high resistance to fatigue, high resistance to corrosion, low co-efficient of friction and high resistance to wear. They have unusually good spring properties. There is also **LEADED PHOSPHOR BRONZE**, developed for free cutting machinability.

**TOBIN BRONZE** is a high Zinc alloy manufactured solely by the American Brass Company. Rods of this alloy are produced by special methods which involve working of the metal from the surface to the core. This results in a much more uniform grain structure that is found in rods of similar composition but produced by other processes. It is remarkable for its tensile strength, high yield strength, and toughness, uniformity of texture and resistance to corrosion. It is widely used for shafting and piston rods.



# ● ANACONDA METALS

## ARCHITECTURAL BRONZE

Architectural Bronze also comes under the heading of a high Zinc alloy. It is produced in many intricate extruded shapes for moulding, frames and decorative trim of various designs.

## EVERDUR

High strength, corrosion resistant alloys, composed basically of Copper and Silicon made and sold by the American Brass Company under its trade name "Everdur." They were developed for structural and engineering uses which require metals with the strength and fabricating possibilities of Steel, combined with immunity to rust, and corrosion resistance equivalent to that of Copper. Everdur is non-magnetic, highly resistant to fatigue, readily workable, hot or cold, and can be satisfactorily welded by the oxy-acetylene torch, and carbon or metallic arc methods.

## PRODUCTS AND FORMS AVAILABLE

	Sheet	Strip	Rods	Bars	Tubes	Wire	Shapes	Pipe Fittings	Screws, Nuts, Bolts, etc.	Rivets	Welding Rods
Ambrac *	—	—	—	—	●	—	—	—	—	—	—
Architectural Bronze	—	—	●	●	—	—	●	—	—	—	—
Yellow Brass	●	●	●	●	●	●	●	—	●	—	—
Bushing Bronze	—	—	—	●	—	—	—	—	—	—	—
Leaded Brass	●	—	●	●	—	—	—	—	—	—	—
Commercial Bronze	●	—	●	●	●	—	●	—	—	—	—
Leaded Comm'l Bronze	—	—	●	—	—	—	—	—	—	—	—
Deoxidized Copper	—	—	—	—	●	—	—	—	—	—	—
Copper	●	●	●	●	●	●	—	—	—	●	●
Everdur *	—	—	●	—	●	—	—	—	●	—	●
Free Cutting Yellow Brass	●	—	●	●	—	—	—	—	—	—	—
Muntz Metal	●	—	●	—	—	—	—	—	●	—	—
Nickel Silver	●	●	●	—	●	●	●	—	—	—	—
Phosphor Bronze	●	—	●	—	—	●	—	—	—	—	—
Free Cutting Phos. Bronze	—	—	●	—	—	—	—	—	—	—	—
Red Brass—80%	—	—	—	—	—	●	—	—	—	—	—
Red Brass—85%	●	—	—	—	●	—	—	—	—	—	—
Tobin Bronze*	—	—	●	—	—	—	—	—	—	—	●

\* Reg. U. S. Pat. Off.



# ANACONDA METALS •

## MECHANICAL PROPERTIES OF ANACONDA ALLOYS

NAME	Form (a)	Tensile Strength, lb./sq. in.		Elonga- tion, % in 2 in.		Yield Strength @ 0.5% extension, lb./sq. in.		Rockwell Hardness No.	
		Hard (b)	Soft	Hard (b)	Soft	Hard (b)	Soft	Hard (b)	Soft
COPPERS									
Copper, Electrolytic Tough Pitch	Sheet	46,000	33,000	5	35	40,000	10,000	B51	F35
“ “ “ “	Rod	45,000	32,000	15	45	40,000	10,000	B50	F35
“ “ “ “	Wire	66,000	35,000	1(e)	35(e)	.....	.....	.....	.....
“ Deoxidized.....	Tube	45,000	35,000	10	45	40,000	10,000	B50	F40
BRASSES									
Commercial Bronze—90%.....	Sheet	62,000	37,000	6	40	47,000	12,000	B70	B1
“ “ — “.....	Wire	80,000	38,000	1(e)	40(e)	.....	.....	.....	.....
Red Brass—85%.....	Sheet	69,000	40,000	7	45	55,000	15,000	B76	B5
“ — “.....	Tube	69,000	40,000	10	50	55,000	15,000	B76	B5
Yellow Brass.....	Sheet	73,000	45,000	10	60	60,000	17,000	B80	B15
“ “.....	Rod	65,000	46,000	20	60	50,000	17,000	B75	B20
“ “.....	Wire	105,000	50,000	1(e)	50(e)	.....	.....	.....	.....
Muntz Metal.....	Sheet	80,000	54,000	8	45	60,000	20,000	B85	B45
LEADED BRASSES									
Leaded Commercial Bronze....	Rod	54,000	37,000	15	40	45,000	12,000	B58	B1
Butt Brass.....	Sheet	73,000	45,000	8	55	60,000	17,000	B80	B15
Free Cutting Yellow Brass.....	Rod	58,000	47,000	18	60	42,000	18,000	B70	B20
Extruded Architectural Bronze.	Rod	.....	65,000	..	25	.....	.....	.....	.....
SPECIAL BRASSES									
Naval Brass # 452.....	Rod	63,000	56,000	30	40	35,000	22,000	B65	B50
Tobin Bronze.....	Rod	63,000	56,000	35	45	35,000	22,000	B65	B50
PHOSPHOR BRONZES									
Phosphor Bronze—5%.....	Sheet	80,000	48,000	8	50	65,000	20,000	B86	B28
Special Free Cutting Phosphor Bronze.....	Rod	60,000	.....	20	..	45,000	.....	B75	...
NICKEL SILVERs									
Nickel Silver—10% # 752....	Sheet	88,000	55,000	7	42	70,000	20,000	B87	B30
“ “ —15% # 741.....	Sheet	90,000	55,000	5	40	.....	.....	.....	.....
“ “ —18% # 719.....	Sheet	85,000	58,000	4	40	70,000	.....	B85	B40
“ “ —18% # 723.....	Rod	80,000	60,000	20	45	60,000	22,000	B85	B45
“ “ “ “.....	Wire	130,000	65,000	1(e)	40(e)	.....	.....	.....	.....
Ambrac* # 850.....	Tube	75,000	50,000	10	45	55,000	18,000	B82	B25
COPPER-SILICON ALLOYS									
Everdur* # 1010.....	Sheet	95,000	58,000	7	60	60,000	22,000	B92	B35
“ “.....	Rod	90,000	58,000	18	70	60,000	22,000	B90	B35
“ “.....	Wire	145,000	60,000	1(e)	50(e)	.....	.....	.....	.....

(a) Form for which properties are given: S sheet, 0.040 in. thick; R rod, 1 in. diameter; W wire, 0.080 in. diameter; T tube, 1 in. diameter x 0.065 in. wall thickness.

(b) Hard temper:—values are for Sheet reduced 4 B&S gauge members in thickness by cold rolling and for Rod, Wire and Tube of commercial hard drawn temper.

(e) Elongation of wire, per cent in 10 in.

## NOMINAL COMPOSITIONS OF ANACONDA METALS IN STOCK

COMMON NAME	Copper	NOMINAL COMPOSITION—PER CENT						
		Zinc	Tin	Lead	Nickel	Silicon	Mngse	Others
Ambrac*.....	75.00	5.00	.....	.....	20.00	.....	.....	.....
Architectural Bronze.....	56.00	41.50	.....	2.50	.....	.....	.....	.....
Bushing Bronze #610.....	83.00	4.00	4.00	4.00	.....	.....	.....	.....
Butt Brass #229.....	64.00	35.00	.....	1.00	.....	.....	.....	.....
Commercial Bronze.....	90.00	10.00	.....	.....	.....	.....	.....	.....
Leaded Commercial Bronze #202.....	88.50	10.00	.....	1.50	.....	.....	.....	.....

\* Reg. U. S. Pat. Off.

(Continued on next page)

# ● ANACONDA METALS

## NOMINAL COMPOSITIONS OF ANACONDA METALS CARRIED IN STOCK (Cont.)

COMMON NAME	NOMINAL COMPOSITION—PER CENT						
	Copper	Zinc	Tin	Lead	Nickel	Silicon	Mngse Others
Copper:							
Deoxidized Copper	99.9+	.....	.....	.....	.....	.....	P0.02
Electrolytic (Tough Pitch)							
Copper	99.9+	.....	.....	.....	.....	.....	.....
Everdur* Copper-Silicon							
Alloy #1010	95.80	.....	.....	.....	.....	3.10	1.10
Free Cutting Yellow Brass							
#271	62.00	35.00	.....	3.00	.....	.....	.....
Muntz Metal	60.00	40.00	.....	.....	.....	.....	.....
Naval Brass	60.00	39.25	0.75	.....	.....	.....	.....
Nickel Silver	18% 15% 10%	#719	65.00	17.00	.....	18.00	.....
		#723	56.00	26.00	.....	18.00	.....
		#724	55.00	27.00	.....	18.00	.....
		#741	57.00	28.00	.....	15.00	.....
		#752	65.00	25.00	.....	10.00	.....
Oreide		87.25	11.50	.....	.....	.....	.....
Phosphor Bronze		95.00	.....	5.00	.....	.....	.....
Free Cutting Phos. Bronze		88.00	4.00	4.00	4.00	.....	.....
Red Brass 85%		85.00	15.00	.....	.....	.....	.....
Spring Brass		72.00	28.00	.....	.....	.....	.....
Tobin Bronze*		60.00	39.25	0.75	.....	.....	.....
Yellow Brass		65.00	35.00	.....	.....	.....	.....

## PHYSICAL PROPERTIES OF ANACONDA ALLOYS

NAME	Melting Point, °C.	Density, lb. per cu. in.	Aver. Coeff. of Lineal Thermal Expansion per °F. (77°-572° F.)	Electrical Conductivity, % I.A.S.C. @ 68° F. (volumetric)	Thermal Conductivity, B.t.u./sq. ft. /ft./hr./° F. @ 68° F.
COPPERS					
Copper, Electrolytic Tough Pitch	1083	0.322	.0000098	100.0	223
Deoxidized	1083	0.323	.0000098	85.0	197
BRASSES					
Commercial Bronze—90%	1045	0.318	.0000101	43.0	108
Red Brass—85%	1025	0.316	.0000104	37.0	92
Yellow Brass	930	0.306	.0000112	26.0	69
Muntz Metal	905	0.303	.0000116	28.4	73
LEADED BRASSES					
Leaded Commercial Bronze #202	1038	0.319	.0000102	41.0	105
Butt Brass	923	0.306	.....	26.0	68
Free Cutting Yellow Brass	895	0.307	.0000113	25.5	62
Extruded Architectural Bronze	884	0.305	.....	25.0	...
SPECIAL BRASSES					
Naval Brass #452	885	0.304	.0000119	25.8	67
Tobin Bronze*	885	0.304	.0000117	25.8	67
PHOSPHOR BRONZES					
Phosphor Bronze—5%	1050	0.320	.0000099	18.4	47
Special Free Cutting Phosphor Bronze—610	1000	0.320	.0000102	12.2	32
NICKEL SILVERS					
Nickel Silver—10% #752	1010	0.313	.....	8.4	27
" " —15% #741	1030	0.312	.....	6.1	...
" " —18% #719	1110	0.316	.....	6.0	19
" " —18% #723	1060	0.314	.....	5.4	17
Ambrac* #850	1150	0.320	.0000091	6.1	22
COPPER-SILICON ALLOYS					
Everdur* #1010	1019	0.308	.0000100	6.5	19

\* Reg. U. S. Pat. Off.

## HALF HARD BRASS SHEETS

In 6 to 8 Foot Lengths

Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot	Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot
No. 28 (.012")	10"	.463 lbs.	No. 17 (.045")	8"	1.332 lbs.
No. 28 (.012")	12"	.555 lbs.	No. 17 (.045")	10"	1.663 lbs.
No. 26 (.016")	8"	.467 lbs.	No. 17 (.045")	12"	1.996 lbs.
No. 26 (.016")	10"	.584 lbs.	No. 17 (.045")	14"	2.331 lbs.
No. 26 (.016")	12"	.700 lbs.	No. 16 (.050")	6"	1.119 lbs.
No. 26 (.016")	14"	.817 lbs.	No. 16 (.050")	8"	1.492 lbs.
No. 24 (.020")	6"	.443 lbs.	No. 16 (.050")	10"	1.865 lbs.
No. 24 (.020")	8"	.590 lbs.	No. 16 (.050")	12"	2.238 lbs.
No. 24 (.020")	10"	.738 lbs.	No. 16 (.050")	14"	2.621 lbs.
No. 24 (.020")	12"	.885 lbs.	No. 16 (.050")	16"	2.984 lbs.
No. 24 (.020")	14"	1.033 lbs.	No. 16 (.050")	18"	3.357 lbs.
No. 24 (.020")	18"	1.328 lbs.	No. 15 (.057")	12"	2.516 lbs.
No. 22 (.025")	6"	.560 lbs.	No. 15 (.057")	14"	2.935 lbs.
No. 22 (.025")	8"	.747 lbs.	No. 14 (.064") *	4"	.942 lbs.
No. 22 (.025")	10"	.929 lbs.	No. 14 (.064")	5"	1.177 lbs.
No. 22 (.025")	12"	1.115 lbs.	No. 14 (.064")	6"	1.412 lbs.
No. 22 (.025")	14"	1.304 lbs.	No. 14 (.064")	8"	1.883 lbs.
No. 22 (.025")	16"	1.491 lbs.	No. 14 (.064")	10"	2.354 lbs.
No. 22 (.025")	18"	1.674 lbs.	No. 14 (.064")	12"	2.825 lbs.
No. 20 (.032")	6"	.705 lbs.	No. 14 (.064")	14"	3.297 lbs.
No. 20 (.032")	8"	.940 lbs.	No. 14 (.064")	16"	3.768 lbs.
No. 20 (.032")	10"	1.175 lbs.	No. 13 (.072")	12"	3.173 lbs.
No. 20 (.032")	12"	1.410 lbs.	No. 13 (.072")	14"	3.710 lbs.
No. 20 (.032")	14"	1.645 lbs.	No. 12 (.081")	6"	1.780 lbs.
No. 20 (.032")	16"	1.880 lbs.	No. 12 (.081")	8"	2.374 lbs.
No. 19 (.036")	6"	.791 lbs.	No. 12 (.081")	10"	2.967 lbs.
No. 19 (.036")	12"	1.582 lbs.	No. 12 (.081")	12"	3.560 lbs.
No. 19 (.036")	14"	1.845 lbs.	No. 12 (.081")	14"	4.151 lbs.
No. 18 (.040")	6"	.888 lbs.	No. 12 (.081")	16"	4.744 lbs.
No. 18 (.040")	8"	1.184 lbs.	No. 11 (.091") *	4"	1.332 lbs.
No. 18 (.040")	10"	1.480 lbs.	No. 11 (.091") *	5"	1.665 lbs.
No. 18 (.040")	12"	1.776 lbs.	No. 11 (.091")	6"	1.998 lbs.
No. 18 (.040")	14"	2.072 lbs.	No. 11 (.091")	8"	2.664 lbs.
No. 18 (.040")	16"	2.368 lbs.	No. 11 (.091")	10"	3.331 lbs.
No. 17 (.045")	6"	.998 lbs.	No. 11 (.091")	12"	3.997 lbs.

(Continued on next page)

FOR WIDER SHEETS SEE PAGE 88.

All Half Hard Brass Sheet No. 11 B&S and heavier are leaded free cutting material.

\* Carried in approximately 12 ft. lengths.

For weight per square foot see pages 221 through 224.

## STOCK SHIPMENTS FOR ECONOMY



## HALF HARD BRASS SHEETS (Cont.)

In 6 to 8 Foot Lengths

Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot	Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot
No. 11 (.091")	14"	4.66 lbs.	1/4" (.250")	10"	9.21 lbs.
No. 11 (.091")	16"	5.33 lbs.	1/4" (.250")	12"	11.06 lbs.
No. 11 (.091")	18"	5.99 lbs.	1/4" (.250")	14"	12.90 lbs.
No. 10 (.102")	6"	2.25 lbs.	1/4" (.250")	16"	14.74 lbs.
No. 10 (.102")	8"	3.00 lbs.	1/4" (.250")	18"	16.58 lbs.
No. 10 (.102")	10"	3.75 lbs.	5/16" (.312")	6"	6.88 lbs.
No. 10 (.102")	12"	4.49 lbs.	5/16" (.312")	8"	9.18 lbs.
No. 10 (.102")	14"	5.23 lbs.	5/16" (.312")	10"	11.46 lbs.
No. 10 (.102")	16"	6.00 lbs.	5/16" (.312")	12"	13.77 lbs.
1/8" (.125") *	4"	1.84 lbs.	3/8" (.375") *	4"	5.53 lbs.
1/8" (.125") *	5"	2.30 lbs.	3/8" (.375") *	5"	6.91 lbs.
1/8" (.125")	6"	2.76 lbs.	3/8" (.375")	6"	8.29 lbs.
1/8" (.125")	8"	3.68 lbs.	3/8" (.375")	8"	11.06 lbs.
1/8" (.125")	10"	4.60 lbs.	3/8" (.375")	10"	13.82 lbs.
1/8" (.125")	12"	5.52 lbs.	3/8" (.375")	12"	16.58 lbs.
1/8" (.125")	14"	6.43 lbs.	3/8" (.375")	14"	19.35 lbs.
1/8" (.125")	16"	7.37 lbs.	3/8" (.375")	16"	22.12 lbs.
5/32" (.156")	12"	6.88 lbs.	3/8" (.375")	18"	24.88 lbs.
3/16" (.187") *	4"	2.76 lbs.	7/16" (.437")	12"	19.28 lbs.
3/16" (.187") *	5"	3.45 lbs.	1/2" (.500") *	4"	7.37 lbs.
3/16" (.187")	6"	4.15 lbs.	1/2" (.500")	6"	11.05 lbs.
3/16" (.187")	8"	5.52 lbs.	1/2" (.500")	8"	14.74 lbs.
3/16" (.187")	10"	6.90 lbs.	1/2" (.500")	10"	18.42 lbs.
3/16" (.187")	12"	8.29 lbs.	1/2" (.500")	12"	22.10 lbs.
3/16" (.187")	14"	9.64 lbs.	1/2" (.500")	14"	25.79 lbs.
1/4" (.250") *	4"	3.68 lbs.	5/8" (.625")	10"	22.95 lbs.
1/4" (.250") *	5"	4.60 lbs.	5/8" (.625")	14"	32.13 lbs.
1/4" (.250")	6"	5.53 lbs.	3/4" (.750")	12"	33.05 lbs.
1/4" (.250")	8"	7.37 lbs.	1" (1.000")	12"	44.06 lbs.

All Half Hard Brass Sheet No. 11 B&S and heavier are leaded free cutting material.

\* Carried in approximately 12 ft. lengths.

FOR WIDER SHEETS SEE PAGE 88.

## HALF HARD ENGRAVERS' BRASS

About 8 Feet Long

Thickness	Width	Appr. Wt. Per Linear Foot
1/4" (.250")	12"	11 lbs.

For weight per square foot see pages 221 through 224.

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# ANACONDA BRASS •

## HALF HARD HOOP (SLIT) BRASS IN ROLLS

About 10 Pounds Each

Thickness B. & S. Gauge	Width	Appr. Wt. Per 100 Feet	Thickness B. & S. Gauge	Width	Appr. Wt. Per 100 Feet
No. 26 (.016")	3/8"	2.19 lbs.	No. 20 (.032")	5/8"	7.34 lbs.
No. 26 (.016")	1/2"	2.92 lbs.	No. 20 (.032")	3/4"	8.81 lbs.
No. 26 (.016")	5/8"	3.65 lbs.	No. 20 (.032")	1"	11.75 lbs.
No. 26 (.016")	3/4"	4.38 lbs.	No. 20 (.032")	1 1/4"	14.69 lbs.
No. 26 (.016")	1"	5.84 lbs.	No. 20 (.032")	1 1/2"	17.63 lbs.
No. 26 (.016")	1 1/4"	7.29 lbs.	No. 20 (.032")	1 3/4"	20.56 lbs.
No. 26 (.016")	1 1/2"	8.76 lbs.	No. 20 (.032")	2"	23.50 lbs.
No. 26 (.016")	1 3/4"	10.22 lbs.	No. 18 (.040")	3/8"	5.55 lbs.
No. 26 (.016")	2"	11.68 lbs.	No. 18 (.040")	1/2"	7.40 lbs.
No. 24 (.020")	3/8"	2.77 lbs.	No. 18 (.040")	5/8"	9.25 lbs.
No. 24 (.020")	1/2"	3.69 lbs.	No. 18 (.040")	3/4"	11.10 lbs.
No. 24 (.020")	5/8"	4.61 lbs.	No. 18 (.040")	1"	14.80 lbs.
No. 24 (.020")	3/4"	5.54 lbs.	No. 18 (.040")	1 1/4"	18.50 lbs.
No. 24 (.020")	1"	7.38 lbs.	No. 18 (.040")	1 1/2"	22.20 lbs.
No. 24 (.020")	1 1/4"	9.23 lbs.	No. 18 (.040")	1 3/4"	25.90 lbs.
No. 24 (.020")	1 1/2"	11.07 lbs.	No. 18 (.040")	2"	29.60 lbs.
No. 24 (.020")	1 3/4"	12.92 lbs.	No. 16 (.050")	3/8"	7.00 lbs.
No. 24 (.020")	2"	14.76 lbs.	No. 16 (.050")	1/2"	9.33 lbs.
No. 22 (.025")	3/8"	3.49 lbs.	No. 16 (.050")	5/8"	11.66 lbs.
No. 22 (.025")	1/2"	4.66 lbs.	No. 16 (.050")	3/4"	13.99 lbs.
No. 22 (.025")	5/8"	5.81 lbs.	No. 16 (.050")	1"	18.65 lbs.
No. 22 (.025")	3/4"	6.97 lbs.	No. 16 (.050")	1 1/4"	23.32 lbs.
No. 22 (.025")	1"	9.30 lbs.	No. 16 (.050")	1 1/2"	28.00 lbs.
No. 22 (.025")	1 1/4"	11.61 lbs.	No. 16 (.050")	2"	37.31 lbs.
No. 22 (.025")	1 1/2"	13.94 lbs.	No. 14 (.064")	3/8"	8.83 lbs.
No. 22 (.025")	1 3/4"	16.26 lbs.	No. 14 (.064")	1/2"	11.77 lbs.
No. 22 (.025")	2"	18.58 lbs.	No. 14 (.064")	5/8"	14.71 lbs.
No. 20 (.032")	1/4"	2.94 lbs.	No. 14 (.064")	3/4"	17.65 lbs.
No. 20 (.032")	3/8"	4.41 lbs.	No. 14 (.064")	1"	23.54 lbs.
No. 20 (.032")	1/2"	5.88 lbs.			

For brass slit to requirements from standard sheet or roll see  
"Slitting Facilities" opposite page 65.

## SPRING TEMPER BRASS IN ROLLS

About 50 to 75 Pounds Each

Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot	Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot
No. 36 (.005")	8"	.147 lbs.	No. 24 (.020")	8"	.591 lbs.
No. 34 (.006")	8"	.185 lbs.	No. 22 (.025")	8"	.743 lbs.
No. 32 (.008")	8"	.235 lbs.	No. 20 (.032")	8"	.940 lbs.
No. 30 (.010")	8"	.294 lbs.	No. 18 (.040")	8"	1.184 lbs.
No. 28 (.012")	8"	.370 lbs.	No. 16 (.050")	8"	1.492 lbs.
No. 26 (.016")	8"	.467 lbs.	No. 14 (.064")	8"	1.884 lbs.

STOCK SHIPMENTS FOR ECONOMY

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## HALF HARD BRASS IN ROLLS

About 50 to 75 Pounds Each

Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot	Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot
No. 28 (.012")	10"	.463 lbs.	No. 24 (.020")	14"	1.033 lbs.
No. 28 (.012")	12"	.555 lbs.	No. 22 (.025")	10"	.929 lbs.
No. 28 (.012")	14"	.647 lbs.	No. 22 (.025")	12"	1.115 lbs.
No. 26 (.016")	10"	.584 lbs.	No. 22 (.025")	14"	1.300 lbs.
No. 26 (.016")	12"	.700 lbs.	No. 20 (.032")	10"	1.175 lbs.
No. 26 (.016")	14"	.817 lbs.	No. 20 (.032")	12"	1.410 lbs.
No. 24 (.020")	10"	.738 lbs.	No. 20 (.032")	14"	1.645 lbs.
No. 24 (.020")	12"	.886 lbs.			

## HALF HARD BRASS STRIP

In 8 to 12 Foot Lengths

Dimensions	Appr. Wt. Per Foot	Dimensions	Appr. Wt. Per Foot	Dimensions	Appr. Wt. Per Foot
1/4" x 1/16"	.057 lbs.	* 7/8" x 1/8"	.403 lbs.	2 1/4" x 1/8"	1.036 lbs.
* 1/4" x 3/32"	.084 lbs.	1" x 1/16"	.225 lbs.	2 1/2" x 1/16"	.560 lbs.
* 1/4" x 1/8"	.119 lbs.	* 1" x 3/32"	.343 lbs.	2 1/2" x 3/32"	.864 lbs.
5/16" x 1/16"	.071 lbs.	* 1" x 1/8"	.461 lbs.	2 1/2" x 1/8"	1.151 lbs.
* 5/16" x 1/8"	.145 lbs.	1 1/8" x 1/16"	.255 lbs.	3" x 1/16"	.675 lbs.
3/8" x 1/16"	.085 lbs.	* 1 1/8" x 1/8"	.518 lbs.	3" x 3/32"	1.036 lbs.
* 3/8" x 3/32"	.128 lbs.	1 1/4" x 1/16"	.286 lbs.	3" x 1/8"	1.381 lbs.
* 3/8" x 1/8"	.170 lbs.	1 1/4" x 3/32"	.428 lbs.	3 1/2" x 1/16"	.681 lbs.
1/2" x 1/16"	.110 lbs.	* 1 1/4" x 1/8"	.576 lbs.	3 1/2" x 3/32"	1.214 lbs.
* 1/2" x 3/32"	.178 lbs.	1 1/2" x 1/16"	.342 lbs.	3 1/2" x 1/8"	1.619 lbs.
* 1/2" x 1/8"	.238 lbs.	1 1/2" x 3/32"	.515 lbs.	3 1/2" x 3/16"	2.418 lbs.
5/8" x 1/16"	.143 lbs.	* 1 1/2" x 1/8"	.691 lbs.	4" x 1/16"	.900 lbs.
* 5/8" x 3/32"	.215 lbs.	1 3/4" x 1/16"	.396 lbs.	4" x 3/32"	1.424 lbs.
5/8" x 1/8"	.286 lbs.	1 3/4" x 3/32"	.605 lbs.	4" x 1/8"	1.912 lbs.
3/4" x 1/32"	.088 lbs.	* 1 3/4" x 1/8"	.806 lbs.	4" x 3/16"	2.763 lbs.
3/4" x 1/16"	.171 lbs.	2" x 1/16"	.450 lbs.	5" x 1/16"	1.120 lbs.
* 3/4" x 3/32"	.257 lbs.	2" x 3/32"	.685 lbs.	5" x 3/32"	1.728 lbs.
* 3/4" x 1/8"	.345 lbs.	* 2" x 1/8"	.981 lbs.	5" x 1/8"	2.302 lbs.
7/8" x 1/16"	.200 lbs.	2 1/4" x 1/16"	.505 lbs.	5" x 3/16"	3.454 lbs.
* 7/8" x 3/32"	.300 lbs.	2 1/4" x 3/32"	.778 lbs.		

\* Drawn Rod. All other sizes have Sheared Edges.

Other Sizes Listed Under  
RECTANGULAR HARD DRAWN BRASS BARS  
See Page 78

## EMBOSSSED BRASS

Ornamental and Fancy Pattern In Standard or New Designs

A booklet showing patterns available at our Mill will be sent upon request. Embossed Metal also made of Copper, Nickel Silver, Red Brass and Commercial Bronze.



## SOFT BRASS IN ROLLS

Thickness B. & S. Gauge			About 50 to 75 Pounds Each Appr. Wt. Per Linear Foot			Thickness B. & S. Gauge			Appr. Wt. Per Linear Foot		
	Width						Width				
No. 46 (.0016")	6"	—	.033 lbs.			No. 26 (.016")	8½"	—	.496 lbs.		
No. 44 (.002")	6"	—	.044 lbs.			No. 26 (.016")	9"	—	.525 lbs.		
No. 42 (.0025")	6"	—	.055 lbs.			No. 26 (.016")	10"	—	.584 lbs.		
No. 40 (.0031")	6"	—	.066 lbs.			No. 26 (.016")	12"	—	.700 lbs.		
No. 38 (.004")	6"	—	.088 lbs.			No. 26 (.016")	14"	—	.817 lbs.		
No. 36 (.005")	6"	—	.110 lbs.			No. 26 (.016")	16"	—	.934 lbs.		
No. 36 (.005")	8"	—	.147 lbs.			No. 26 (.016")	18"	—	1.051 lbs.		
No. 36 (.005")	10"	—	.184 lbs.			No. 26 (.016")	22"	—	1.284 lbs.		
No. 36 (.005")	12"	—	.220 lbs.			No. 25 (.018")	6"	—	.394 lbs.		
No. 36 (.005")	14"	—	.257 lbs.			No. 25 (.018")	8"	—	.525 lbs.		
No. 34 (.006")	6"	—	.139 lbs.			No. 25 (.018")	9"	—	.591 lbs.		
No. 34 (.006")	8"	—	.185 lbs.			No. 25 (.018")	10"	—	.657 lbs.		
No. 34 (.006")	10"	—	.231 lbs.			No. 25 (.018")	12"	—	.788 lbs.		
No. 34 (.006")	12"	—	.277 lbs.			No. 25 (.018")	14"	—	.920 lbs.		
No. 34 (.006")	14"	—	.324 lbs.			No. 24 (.020")	4"	—	.295 lbs.		
No. 32 (.008")	6"	—	.176 lbs.			No. 24 (.020")	5"	—	.369 lbs.		
No. 32 (.008")	8"	—	.235 lbs.			No. 24 (.020")	5½"	—	.406 lbs.		
No. 32 (.008")	10"	—	.293 lbs.			No. 24 (.020")	6"	—	.443 lbs.		
No. 32 (.008")	12"	—	.352 lbs.			No. 24 (.020")	6½"	—	.479 lbs.		
No. 32 (.008")	14"	—	.413 lbs.			No. 24 (.020")	7"	—	.516 lbs.		
No. 30 (.010")	6"	—	.220 lbs.			No. 24 (.020")	7½"	—	.553 lbs.		
No. 30 (.010")	8"	—	.294 lbs.			No. 24 (.020")	8"	—	.590 lbs.		
No. 30 (.010")	10"	—	.367 lbs.			No. 24 (.020")	8½"	—	.627 lbs.		
No. 30 (.010")	12"	—	.441 lbs.			No. 24 (.020")	9"	—	.664 lbs.		
No. 30 (.010")	14"	—	.516 lbs.			No. 24 (.020")	9½"	—	.701 lbs.		
No. 28 (.012")	6"	—	.278 lbs.			No. 24 (.020")	10"	—	.738 lbs.		
No. 28 (.012")	8"	—	.370 lbs.			No. 24 (.020")	11"	—	.812 lbs.		
No. 28 (.012")	10"	—	.463 lbs.			No. 24 (.020")	12"	—	.885 lbs.		
No. 28 (.012")	12"	—	.555 lbs.			No. 24 (.020")	13"	—	.960 lbs.		
No. 28 (.012")	14"	—	.650 lbs.			No. 24 (.020")	14"	—	1.033 lbs.		
No. 28 (.012")	16"	—	.742 lbs.			No. 24 (.020")	16"	—	1.180 lbs.		
No. 28 (.012")	18"	—	.836 lbs.			No. 24 (.020")	18"	—	1.328 lbs.		
No. 28 (.012")	20"	—	.925 lbs.			No. 24 (.020")	20"	—	1.476 lbs.		
No. 27 (.014")	12"	—	.626 lbs.			No. 24 (.020")	24"	—	1.770 lbs.		
No. 26 (.016")	5"	—	.292 lbs.			No. 23 (.022")	6"	—	.498 lbs.		
No. 26 (.016")	5½"	—	.321 lbs.			No. 23 (.022")	7"	—	.581 lbs.		
No. 26 (.016")	6"	—	.350 lbs.			No. 23 (.022")	8"	—	.664 lbs.		
No. 26 (.016")	6½"	—	.379 lbs.			No. 23 (.022")	9"	—	.747 lbs.		
No. 26 (.016")	7½"	—	.437 lbs.			No. 23 (.022")	10"	—	.830 lbs.		
No. 26 (.016")	8"	—	.467 lbs.			No. 23 (.022")	12"	—	.995 lbs.		

(Continued on next page)

## SOFT BRASS IN ROLLS (Cont.)

About 50 to 75 Pounds Each					
Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot	Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot
No. 23 (.022")	14"	1.162 lbs.	No. 20 (.032")	12"	1.410 lbs.
No. 22 (.025")	4"	.373 lbs.	No. 20 (.032")	13"	1.528 lbs.
No. 22 (.025")	5"	.465 lbs.	No. 20 (.032")	14"	1.645 lbs.
No. 22 (.025")	5½"	.512 lbs.	No. 20 (.032")	16"	1.880 lbs.
No. 22 (.025")	6"	.557 lbs.	No. 20 (.032")	18"	2.116 lbs.
No. 22 (.025")	6½"	.605 lbs.	No. 20 (.032")	20"	2.350 lbs.
No. 22 (.025")	7"	.650 lbs.	No. 20 (.032")	22"	2.585 lbs.
No. 22 (.025")	7½"	.699 lbs.	No. 20 (.032")	24"	2.820 lbs.
No. 22 (.025")	8"	.743 lbs.	No. 19 (.036")	6"	.791 lbs.
No. 22 (.025")	8½"	.792 lbs.	No. 19 (.036")	10"	1.318 lbs.
No. 22 (.025")	9"	.838 lbs.	No. 19 (.036")	12"	1.582 lbs.
No. 22 (.025")	10"	.929 lbs.	No. 19 (.036")	14"	1.846 lbs.
No. 22 (.025")	11"	1.022 lbs.	No. 18 (.040")	6"	.888 lbs.
No. 22 (.025")	12"	1.115 lbs.	No. 18 (.040")	7"	1.036 lbs.
No. 22 (.025")	13"	1.208 lbs.	No. 18 (.040")	8"	1.184 lbs.
No. 22 (.025")	14"	1.301 lbs.	No. 18 (.040")	10"	1.480 lbs.
No. 22 (.025")	16"	1.486 lbs.	No. 18 (.040")	12"	1.776 lbs.
No. 22 (.025")	18"	1.674 lbs.	No. 18 (.040")	13"	1.924 lbs.
No. 22 (.025")	20"	1.858 lbs.	No. 18 (.040")	14"	2.072 lbs.
No. 22 (.025")	22"	2.044 lbs.	No. 18 (.040")	16"	2.368 lbs.
No. 22 (.025")	24"	2.230 lbs.	No. 18 (.040")	18"	2.664 lbs.
No. 21 (.028")	6"	.628 lbs.	No. 18 (.040")	20"	2.960 lbs.
No. 21 (.028")	8"	.837 lbs.	No. 18 (.040")	22"	3.250 lbs.
No. 21 (.028")	10"	1.047 lbs.	No. 18 (.040")	24"	3.552 lbs.
No. 21 (.028")	12"	1.256 lbs.	No. 16 (.050")	6"	1.119 lbs.
No. 21 (.028")	14"	1.465 lbs.	No. 16 (.050")	8"	1.492 lbs.
No. 20 (.032")	4"	.470 lbs.	No. 16 (.050")	10"	1.865 lbs.
No. 20 (.032")	5"	.587 lbs.	No. 16 (.050")	12"	2.238 lbs.
No. 20 (.032")	5½"	.646 lbs.	No. 16 (.050")	14"	2.611 lbs.
No. 20 (.032")	6"	.705 lbs.	No. 16 (.050")	16"	2.980 lbs.
No. 20 (.032")	6½"	.763 lbs.	No. 16 (.050")	18"	3.358 lbs.
No. 20 (.032")	7"	.822 lbs.	No. 16 (.050")	20"	3.730 lbs.
No. 20 (.032")	7½"	.881 lbs.	No. 16 (.050")	24"	4.476 lbs.
No. 20 (.032")	8"	.940 lbs.	No. 14 (.064")	6"	1.413 lbs.
No. 20 (.032")	8½"	.998 lbs.	No. 14 (.064")	8"	1.884 lbs.
No. 20 (.032")	9"	1.057 lbs.	No. 14 (.064")	10"	2.355 lbs.
No. 20 (.032")	10"	1.175 lbs.	No. 14 (.064")	12"	2.825 lbs.
No. 20 (.032")	11"	1.293 lbs.	No. 14 (.064")	14"	3.297 lbs.

Other Sheet Metal Products available from mill are listed on page 95



**ROUND BRASS RODS**

**Free Turning Quality**

Diameter	Appr. Wt. Per Foot	In 10 to 12-Foot Lengths Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot
1/16"	.011 lbs.	15/32"	.636 lbs.	1 1/2"	6.510 lbs.
3/32"	.025 lbs.	1/2"	.724 lbs.	1 9/16"	7.064 lbs.
7/64"	.030 lbs.	17/32"	.818 lbs.	1 5/8"	7.640 lbs.
1/8"	.045 lbs.	9/16"	.916 lbs.	1 11/16"	8.239 lbs.
9/64"	.059 lbs.	5/8"	1.130 lbs.	1 3/4"	8.861 lbs.
.148"	.067 lbs.	1 1/16"	1.369 lbs.	1 7/8"	10.170 lbs.
5/32"	.070 lbs.	3/4"	1.628 lbs.	1 15/16"	10.860 lbs.
11/64"	.085 lbs.	13/16"	1.910 lbs.	2"	11.570 lbs.
3/16"	.102 lbs.	7/8"	2.215 lbs.	2 1/8"	13.070 lbs.
13/64"	.119 lbs.	15/16"	2.543 lbs.	2 1/4"	14.650 lbs.
7/32"	.138 lbs.	1"	2.893 lbs.	2 3/8"	16.320 lbs.
15/64"	.159 lbs.	1 1/16"	3.266 lbs.	2 1/2"	18.086 lbs.
1/4"	.181 lbs.	1 1/8"	3.662 lbs.	2 5/8"	19.940 lbs.
9/32"	.229 lbs.	1 3/16"	4.080 lbs.	2 3/4"	21.880 lbs.
5/16"	.283 lbs.	1 1/4"	4.521 lbs.	3"	26.040 lbs.
11/32"	.342 lbs.	1 5/16"	4.984 lbs.	3 1/4"	30.600 lbs.
3/8"	.407 lbs.	1 3/8"	5.470 lbs.	3 1/2"	35.400 lbs.
13/32"	.478 lbs.	1 7/16"	5.979 lbs.	4"	46.300 lbs.
7/16"	.554 lbs.				

**Drill Gauge Sizes**

Diameter	Length	Appr. Wt. Per Ft.	Diameter	Length	Appr. Wt. Per Ft.
No. 60 (.040")	— 36"	— .0046 lbs.	No. 28 (.140")	— 120"	— .0540 lbs.
No. 58 (.042")	— 36"	— .0052 lbs.	No. 27 (.144")	— 36"	— .0600 lbs.
No. 55 (.049")	— 36"	— .0075 lbs.	No. 25 (.148")	— 72"	— .0666 lbs.
No. 54 (.056")	— 36"	— .0080 lbs.	No. 24 (.152")	— 36"	— .0680 lbs.
No. 53 (.058")	— 36"	— .0100 lbs.	No. 22 (.156")	— 120"	— .0701 lbs.
No. 52 (.063")	— 72"	— .0120 lbs.	No. 20 (.161")	— 36"	— .0750 lbs.
No. 49 (.072")	— 36"	— .0150 lbs.	No. 19 (.165")	— 72"	— .0804 lbs.
No. 48 (.076")	— 36"	— .0160 lbs.	No. 18 (.171")	— 120"	— .0809 lbs.
No. 46 (.081")	— 36"	— .0188 lbs.	No. 16 (.177")	— 36"	— .0900 lbs.
No. 45 (.083")	— 36"	— .0200 lbs.	No. 14 (.180")	— 72"	— .0948 lbs.
No. 44 (.086")	— 36"	— .0220 lbs.	No. 12 (.187")	— 120"	— .1019 lbs.
No. 42 (.095")	— 36"	— .0272 lbs.	No. 10 (.193")	— 36"	— .1150 lbs.
No. 40 (.098")	— 36"	— .0280 lbs.	No. 8 (.199")	— 36"	— .1180 lbs.
No. 38 (.101")	— 36"	— .0290 lbs.	No. 6 (.203")	— 120"	— .1200 lbs.
No. 36 (.106")	— 36"	— .0310 lbs.	No. 5 (.205")	— 36"	— .1206 lbs.
No. 35 (.109")	— 72"	— .0342 lbs.	No. 4 (.209")	— 36"	— .1280 lbs.
No. 32 (.116")	— 36"	— .0380 lbs.	No. 2 (.220")	— 120"	— .1336 lbs.
No. 31 (.120")	— 72"	— .0420 lbs.	No. 1 (.227")	— 36"	— .1510 lbs.
No. 30 (.125")	— 72"	— .0453 lbs.	— — (.238")	— 120"	— .1580 lbs.
No. 29 (.134")	— 72"	— .0528 lbs.			

**STOCK SHIPMENTS FOR ECONOMY**



## HEXAGON BRASS RODS

### Free Turning Quality

In 10 to 12 Foot Lengths  
(Measured Across the Flat)

Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot
1/8"	.050 lbs.	1 1/16"	1.508 lbs.	1 5/16"	5.496 lbs.
5/32"	.078 lbs.	3/4"	1.795 lbs.	1 3/8"	6.032 lbs.
3/16"	.112 lbs.	1 3/16"	2.106 lbs.	1 7/16"	6.593 lbs.
7/32"	.153 lbs.	7/8"	2.443 lbs.	1 1/2"	7.178 lbs.
1/4"	.199 lbs.	1 5/16"	2.804 lbs.	1 5/8"	8.425 lbs.
5/16"	.312 lbs.	1"	3.190 lbs.	1 3/4"	9.771 lbs.
3/8"	.449 lbs.	1 1/16"	3.602 lbs.	1 7/8"	11.220 lbs.
7/16"	.611 lbs.	1 1/8"	4.038 lbs.	2"	12.760 lbs.
1/2"	.798 lbs.	1 3/16"	4.499 lbs.	2 1/4"	16.150 lbs.
9/16"	1.009 lbs.	1 1/4"	4.985 lbs.	2 1/2"	19.940 lbs.
5/8"	1.246 lbs.				

## SQUARE BRASS RODS

### Free Turning Quality

In 10 to 12 Foot Lengths  
(Measured Across the Flat)

Dimensions	Approx. Wt. Per Foot	Dimensions	Approx. Wt. Per Foot	Dimensions	Approx. Wt. Per Foot
1/8" x 1/8"	.057 lbs.	1/2" x 1/2"	.921 lbs.	1 1/8" x 1 1/8"	4.663 lbs.
3/16" x 3/16"	.129 lbs.	9/16" x 9/16"	1.166 lbs.	1 3/16" x 1 3/16"	5.195 lbs.
1/4" x 1/4"	.230 lbs.	5/8" x 5/8"	1.439 lbs.	1 1/4" x 1 1/4"	5.756 lbs.
9/32" x 9/32"	.292 lbs.	3/4" x 3/4"	2.072 lbs.	1 1/2" x 1 1/2"	8.289 lbs.
5/16" x 5/16"	.360 lbs.	7/8" x 7/8"	2.821 lbs.	1 3/4" x 1 3/4"	11.280 lbs.
3/8" x 3/8"	.518 lbs.	1" x 1"	3.684 lbs.	2" x 2"	14.740 lbs.
7/16" x 7/16"	.705 lbs.				

## HALF ROUND BRASS RODS

### Free Turning Quality

In 10 to 12 Foot Lengths  
(Measured on the Flat)

Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot
3/16"	.051 lbs.	7/16"	.277 lbs.	7/8"	1.108 lbs.
1/4"	.090 lbs.	1/2"	.362 lbs.	1"	1.450 lbs.
5/16"	.141 lbs.	5/8"	.565 lbs.	1 1/4"	2.260 lbs.
3/8"	.203 lbs.	3/4"	.814 lbs.		

Write us for Bulletin B-14, "Anaconda Free-Cutting Brass Rods."

## HALF OVAL BRASS RODS

### Free Turning Quality

In 10 to 12 Foot Lengths (Measured on the Flat)

Dia.	Thickness	Appr. Wt. Per Foot	Dia.	Thickness	Appr. Wt. Per Foot	Dia.	Thickness	Appr. Wt. Per Foot
3/8"	x 3/32"	.100 lbs.	3/4"	x 3/16"	.378 lbs.	1 1/4"	x 5/16"	1.005 lbs.
1/2"	x 1/8"	.167 lbs.	7/8"	x 7/32"	.512 lbs.	1 1/2"	x 3/8"	1.448 lbs.
5/8"	x 5/32"	.260 lbs.	1"	x 1/4"	.662 lbs.			

## RECTANGULAR HARD DRAWN BRASS BARS

In 10 to 12 Foot Lengths

Dimensions	Approx. Wt. Per Foot	Dimensions	Approx. Wt. Per Foot	Dimensions	Approx. Wt. Per Foot
3/16" x 1/8"	.087 lbs.	7/8" x 3/32"	.302 lbs.	1 3/4" x 3/16"	1.210 lbs.
1/4" x 3/32"	.087 lbs.	7/8" x 1/8"	.403 lbs.	1 3/4" x 1/4"	1.612 lbs.
1/4" x 1/8"	.115 lbs.	7/8" x 3/16"	.605 lbs.	1 3/4" x 3/8"	2.418 lbs.
1/4" x 3/16"	.173 lbs.	7/8" x 1/4"	.806 lbs.	1 3/4" x 1/2"	3.224 lbs.
5/16" x 1/8"	.144 lbs.	7/8" x 5/16"	1.008 lbs.	2" x 1/8"	.921 lbs.
5/16" x 3/16"	.216 lbs.	7/8" x 3/8"	1.210 lbs.	2" x 3/16"	1.382 lbs.
5/16" x 1/4"	.286 lbs.	7/8" x 5/8"	2.016 lbs.	2" x 1/4"	1.842 lbs.
3/8" x 3/32"	.129 lbs.	1" x 3/32"	.345 lbs.	2" x 5/16"	2.303 lbs.
3/8" x 1/8"	.173 lbs.	1" x 1/8"	.461 lbs.	2" x 3/8"	2.763 lbs.
3/8" x 3/16"	.259 lbs.	1" x 3/16"	.691 lbs.	2" x 1/2"	3.684 lbs.
3/8" x 1/4"	.346 lbs.	1" x 1/4"	.921 lbs.	2 1/4" x 3/16"	1.554 lbs.
1/2" x 3/32"	.173 lbs.	1" x 5/16"	1.153 lbs.	2 1/4" x 1/4"	2.072 lbs.
1/2" x 1/8"	.230 lbs.	1" x 3/8"	1.382 lbs.	2 1/2" x 3/16"	1.727 lbs.
1/2" x 3/16"	.346 lbs.	1" x 1/2"	1.842 lbs.	2 1/2" x 1/4"	2.303 lbs.
1/2" x 1/4"	.461 lbs.	1" x 5/8"	2.303 lbs.	2 1/2" x 3/8"	3.450 lbs.
1/2" x 5/16"	.576 lbs.	1" x 3/4"	2.763 lbs.	2 1/2" x 1/2"	4.605 lbs.
1/2" x 3/8"	.691 lbs.	1 1/8" x 1/8"	.518 lbs.	3" x 3/16"	2.072 lbs.
5/8" x 3/32"	.216 lbs.	1 1/4" x 1/8"	.576 lbs.	3" x 1/4"	2.763 lbs.
5/8" x 1/8"	.288 lbs.	1 1/4" x 3/16"	.864 lbs.	3" x 5/16"	3.454 lbs.
5/8" x 3/16"	.432 lbs.	1 1/4" x 1/4"	1.151 lbs.	3" x 3/8"	4.145 lbs.
5/8" x 1/4"	.576 lbs.	1 1/4" x 3/8"	1.727 lbs.	3" x 1/2"	5.526 lbs.
5/8" x 5/16"	.720 lbs.	1 1/4" x 1/2"	2.303 lbs.	*3 1/2" x 3/16"	2.420 lbs.
5/8" x 3/8"	.864 lbs.	1 1/4" x 5/8"	2.878 lbs.	3 1/2" x 1/4"	3.224 lbs.
5/8" x 1/2"	1.151 lbs.	1 1/4" x 3/4"	3.454 lbs.	3 1/2" x 3/8"	4.835 lbs.
3/4" x 3/32"	.259 lbs.	1 1/2" x 1/8"	.691 lbs.	*4" x 3/16"	2.764 lbs.
3/4" x 1/8"	.345 lbs.	1 1/2" x 3/16"	1.040 lbs.	4" x 1/4"	3.684 lbs.
3/4" x 3/16"	.518 lbs.	1 1/2" x 1/4"	1.380 lbs.	4" x 3/8"	5.526 lbs.
3/4" x 1/4"	.691 lbs.	1 1/2" x 5/16"	1.750 lbs.	4" x 1/2"	7.368 lbs.
3/4" x 5/16"	.863 lbs.	1 1/2" x 3/8"	2.080 lbs.	*5" x 3/16"	3.450 lbs.
3/4" x 3/8"	1.036 lbs.	1 1/2" x 1/2"	2.740 lbs.	5" x 1/4"	4.605 lbs.
3/4" x 1/2"	1.382 lbs.	1 1/2" x 3/4"	4.150 lbs.	5" x 3/8"	6.908 lbs.
3/4" x 5/8"	1.727 lbs.	1 3/4" x 1/8"	.806 lbs.		

\* Sheared Edges.

Other sizes listed under HALF HARD BRASS STRIP, see page 73.

## HALF HARD BRASS ANGLES

In Random 12-Foot Lengths  
(Outside Measurements)

Size of Legs	Thickness B. & S. Gauge	Approx. Wt. Per Foot	Size of Legs	Thickness B. & S. Gauge	Approx. Wt. Per Foot
1/4" x 1/4"	No. 17 (.045")	.08 lbs.	1 1/4" x 7/8"	No. 22 (.025")	.19 lbs.
3/8" x 3/8"	No. 17 (.045")	.12 lbs.	1 1/4" x 1 1/4"	1/8" (.125")	1.09 lbs.
1/2" x 1/2"	1/16" (.062")	.22 lbs.	1 1/2" x 1 1/2"	1/16" (.062")	.69 lbs.
1/2" x 1/2"	No. 12 (.081")	.27 lbs.	1 1/2" x 1 1/2"	1/8" (.125")	1.32 lbs.
5/8" x 5/8"	1/16" (.062")	.27 lbs.	1 1/2" x 1 1/2"	3/16" (.187")	1.88 lbs.
5/8" x 5/8"	No. 11 (.091")	.38 lbs.	1 1/2" x 1 1/2"	1/4" (.250")	2.52 lbs.
3/4" x 3/4"	No. 16 (.050")	.27 lbs.	2" x 2"	1/8" (.125")	1.79 lbs.
3/4" x 3/4"	1/16" (.062")	.33 lbs.	2" x 2"	3/16" (.187")	2.50 lbs.
3/4" x 3/4"	1/8" (.125")	.66 lbs.	2" x 2"	1/4" (.250")	3.37 lbs.
7/8" x 3/8"	No. 18 (.040")	.18 lbs.	2 1/2" x 2 1/2"	3/16" (.187")	3.41 lbs.
1" x 1"	1/16" (.062")	.44 lbs.	2 1/2" x 2 1/2"	1/4" (.250")	4.20 lbs.
1" x 1"	1/8" (.125")	.86 lbs.	3" x 3"	1/4" (.250")	5.25 lbs.
1" x 1"	3/16" (.187")	1.24 lbs.			

## HALF HARD BRASS CHANNELS

In Random 12-Foot Lengths  
(Outside Measurements)

Leg	Size of Base	Leg	Thickness B. & S. Gauge	Approx. Wt. Per Foot
1/4" x	1/4" x	1/4"	No. 18 (.040")	.098 lbs.
3/8" x	3/8" x	3/8"	No. 18 (.040")	.154 lbs.
3/8" x	3/8" x	3/8"	No. 14 (.064")	.234 lbs.
3/8" x	1/2" x	3/8"	No. 12 (.081")	.330 lbs.
3/8" x	5/8" x	3/8"	No. 12 (.081")	.360 lbs.
3/8" x	3/4" x	3/8"	No. 18 (.040")	.208 lbs.
3/8" x	3/4" x	3/8"	No. 14 (.064")	.310 lbs.
3/8" x	3/4" x	3/8"	3/32" (.094")	.450 lbs.
1/2" x	1" x	1/2"	No. 12 (.081")	.540 lbs.
1/2" x	1 1/4" x	1/2"	No. 12 (.081")	.667 lbs.
1/2" x	1 1/2" x	1/2"	No. 12 (.081")	.690 lbs.
3/4" x	3/4" x	3/4"	No. 14 (.064")	.500 lbs.
1" x	1" x	1"	No. 20 (.032")	.340 lbs.

FOR DETAILED DIMENSIONAL DRAWINGS OF ALL NON-FERROUS SHAPES CARRIED IN STOCK WRITE FOR BOOKLET  
"FUNNY SHAPES"



**HARD DRAWN SEAMLESS BRASS TUBES**

In 12-Foot Lengths

Outside Diameter	Wall Thickness B. & S. and Stubbs' Gauge	Inside Diameter	Approx. Wt. Per Foot
*1/16"	No. 28 S.G. (.014")	.034"	.008 lbs.
*3/32"	No. 28 S.G. (.014")	.065"	.014 lbs.
1/8"	No. 24 B.&S. (.020")	.085"	.024 lbs.
1/8"	No. 21 S.G. (.032")	.061"	.034 lbs.
3/16"	No. 23 B.&S. (.022")	.142"	.042 lbs.
3/16"	No. 21 S.G. (.032")	.123"	.058 lbs.
1/4"	No. 22 B.&S. (.025")	.200"	.065 lbs.
1/4"	No. 21 S.G. (.032")	.186"	.081 lbs.
* 1/4"	No. 17 B.&S. (.045")	.160"	.105 lbs.
1/4"	No. 16 S.G. (.065")	.120"	.139 lbs.
5/16"	No. 22 B.&S. (.025")	.262"	.083 lbs.
5/16"	No. 21 S.G. (.032")	.248"	.104 lbs.
5/16"	No. 18 B.&S. (.040")	.232"	.128 lbs.
*5/16"	No. 17 B.&S. (.045")	.222"	.138 lbs.
3/8"	No. 24 B.&S. (.020")	.335"	.082 lbs.
3/8"	No. 21 B.&S. (.028")	.318"	.113 lbs.
3/8"	No. 18 B.&S. (.040")	.295"	.158 lbs.
3/8"	No. 19 S.G. (.042")	.291"	.162 lbs.
* 3/8"	No. 17 B.&S. (.045")	.285"	.173 lbs.
3/8"	No. 14 B.&S. (.064")	.247"	.233 lbs.
7/16"	No. 24 B.&S. (.020")	.397"	.097 lbs.
7/16"	No. 21 B.&S. (.028")	.381"	.135 lbs.
7/16"	No. 18 B.&S. (.040")	.357"	.184 lbs.
7/16"	No. 19 S.G. (.042")	.353"	.192 lbs.
1/2"	No. 24 B.&S. (.020")	.460"	.113 lbs.
1/2"	No. 22 B.&S. (.025")	.450"	.137 lbs.
1/2"	No. 20 B.&S. (.032")	.436"	.173 lbs.
1/2"	No. 18 B.&S. (.040")	.420"	.217 lbs.
* 1/2"	No. 17 B.&S. (.045")	.410"	.238 lbs.
1/2"	No. 18 S.G. (.049")	.402"	.256 lbs.
1/2"	No. 14 B.&S. (.064")	.372"	.327 lbs.
9/16"	No. 24 B.&S. (.020")	.522"	.126 lbs.
9/16"	No. 21 B.&S. (.028")	.506"	.173 lbs.
9/16"	No. 18 B.&S. (.040")	.482"	.242 lbs.
5/8"	No. 24 B.&S. (.020")	.585"	.142 lbs.
5/8"	No. 22 B.&S. (.025")	.575"	.174 lbs.
5/8"	No. 20 B.&S. (.032")	.561"	.222 lbs.
5/8"	No. 18 B.&S. (.040")	.545"	.276 lbs.
* 5/8"	No. 17 B.&S. (.045")	.535"	.304 lbs.

\* Carried in our Philadelphia Warehouse only.

(Continued on next page)

## HARD DRAWN SEAMLESS BRASS TUBES (Cont.)

Outside Diameter	In 12-Foot Lengths		Appr. Wt. Per Foot
	Wall Thickness B. & S. and Stubs' Gauge	Inside Diameter	
5/8"	No. 18 S.G. (.049")	.527"	.327 lbs.
5/8"	No. 14 B.&S. (.064")	.497"	.421 lbs.
1 1/16"	No. 21 B.&S. (.028")	.631"	.217 lbs.
1 1/16"	No. 14 B.&S. (.064")	.559"	.443 lbs.
3/4"	No. 24 B.&S. (.020")	.710"	.169 lbs.
3/4"	No. 22 B.&S. (.025")	.700"	.210 lbs.
3/4"	No. 20 B.&S. (.032")	.686"	.266 lbs.
3/4"	No. 18 B.&S. (.040")	.670"	.335 lbs.
* 3/4"	No. 17 B.&S. (.045")	.660"	.373 lbs.
3/4"	No. 16 B.&S. (.050")	.650"	.411 lbs.
3/4"	No. 17 S.G. (.058")	.634"	.464 lbs.
3/4"	No. 14 B.&S. (.064")	.622"	.515 lbs.
1 3/16"	No. 21 B.&S. (.028")	.756"	.258 lbs.
7/8"	No. 24 B.&S. (.020")	.835"	.198 lbs.
7/8"	No. 22 B.&S. (.025")	.825"	.246 lbs.
7/8"	No. 20 B.&S. (.032")	.811"	.312 lbs.
7/8"	No. 18 B.&S. (.040")	.795"	.386 lbs.
* 7/8"	No. 17 B.&S. (.045")	.785"	.434 lbs.
7/8"	No. 16 B.&S. (.050")	.775"	.468 lbs.
7/8"	No. 17 S.G. (.058")	.759"	.548 lbs.
7/8"	No. 14 B.&S. (.064")	.747"	.609 lbs.
1 5/16"	No. 18 B.&S. (.040")	.857"	.418 lbs.
1"	No. 24 B.&S. (.020")	.960"	.227 lbs.
1"	No. 22 B.&S. (.025")	.950"	.282 lbs.
1"	No. 20 B.&S. (.032")	.936"	.359 lbs.
1"	No. 18 B.&S. (.040")	.920"	.453 lbs.
* 1"	No. 17 B.&S. (.045")	.910"	.506 lbs.
1"	No. 16 B.&S. (.050")	.900"	.541 lbs.
1"	No. 16 S.G. (.065")	.870"	.703 lbs.
1 1/16"	No. 18 B.&S. (.040")	.982"	.475 lbs.
1 1/8"	No. 23 S.G. (.025")	1.075"	.318 lbs.
1 1/8"	No. 19 S.G. (.042")	1.041"	.520 lbs.
1 1/8"	No. 16 S.G. (.065")	.995"	.797 lbs.
1 1/4"	No. 22 B.&S. (.025")	1.200"	.354 lbs.
1 1/4"	No. 20 B.&S. (.032")	1.186"	.451 lbs.
1 1/4"	No. 18 B.&S. (.040")	1.170"	.571 lbs.
* 1 1/4"	No. 17 B.&S. (.045")	1.160"	.638 lbs.
1 1/4"	No. 15 S.G. (.072")	1.106"	.981 lbs.
1 3/8"	No. 20 B.&S. (.032")	1.311"	.498 lbs.

\*Carried in our Philadelphia Warehouse only.

(Continued on next page)

TUBES

BRONZE



# ANACONDA BRASS •

## HARD DRAWN SEAMLESS BRASS TUBES (Cont.)

In 12-Foot Lengths

Outside Diameter	Wall Thickness B. & S. and Stubbs' Gauge	Inside Diameter	Appr. Wt. Per Foot
*13/8"	No. 17 B.&S. (.045")	1.285"	.693 lbs.
13/8"	No. 16 S.G. (.065")	1.245"	.985 lbs.
13/8"	No. 14 S.G. (.083")	1.207"	1.240 lbs.
1 1/2"	No. 22 B.&S. (.025")	1.450"	.427 lbs.
1 1/2"	No. 20 B.&S. (.032")	1.436"	.544 lbs.
1 1/2"	No. 18 B.&S. (.040")	1.420"	.690 lbs.
*1 1/2"	No. 17 B.&S. (.045")	1.410"	.770 lbs.
1 1/2"	No. 16 B.&S. (.050")	1.400"	.830 lbs.
1 1/2"	No. 16 S.G. (.065")	1.370"	1.080 lbs.
1 1/2"	No. 14 S.G. (.083")	1.314"	1.360 lbs.
1 5/8"	No. 17 B.&S. (.045")	1.535"	.820 lbs.
1 5/8"	No. 14 S.G. (.083")	1.459"	1.480 lbs.
1 3/4"	No. 20 B.&S. (.032")	1.686"	.636 lbs.
1 3/4"	No. 17 B.&S. (.045")	1.660"	.900 lbs.
1 3/4"	No. 13 S.G. (.095")	1.560"	1.820 lbs.
2"	† No. 20 B.&S. (.032")	1.936"	.729 lbs.
2"	No. 17 B.&S. (.045")	1.910"	1.040 lbs.
2"	No. 18 S.G. (.049")	1.902"	1.110 lbs.
2"	No. 16 S.G. (.065")	1.870"	1.460 lbs.
2"	No. 13 S.G. (.095")	1.810"	2.090 lbs.
2 1/4"	No. 17 B.&S. (.045")	2.160"	1.170 lbs.
2 1/4"	No. 14 B.&S. (.064")	2.122"	1.640 lbs.
2 1/4"	No. 12 S.G. (.109")	2.032"	2.700 lbs.
2 1/2"	No. 18 B.&S. (.040")	2.420"	1.140 lbs.
2 1/2"	No. 16 S.G. (.065")	2.370"	1.830 lbs.
2 1/2"	No. 12 S.G. (.109")	2.282"	3.020 lbs.
2 3/4"	No. 16 S.G. (.065")	2.620"	2.020 lbs.
3"	No. 16 S.G. (.065")	2.870"	2.210 lbs.
3"	No. 11 S.G. (.120")	2.760"	4.000 lbs.
3 1/2"	No. 10 S.G. (.134")	3.232"	5.220 lbs.
4"	No. 16 S.G. (.065")	3.870"	2.960 lbs.
4"	No. 10 S.G. (.134")	3.732"	5.996 lbs.
4 1/2"	No. 11 S.G. (.120")	4.260"	6.080 lbs.
5"	No. 11 S.G. (.120")	4.760"	6.780 lbs.
6"	No. 11 S.G. (.120")	5.760"	8.160 lbs.

\* Carried in our Philadelphia Warehouse only.

† Also carried in 20' lengths.



# ● ANACONDA BRASS



## SOFT SEAMLESS BRASS TUBES

In About 12-Foot Lengths

Outside Diameter	Wall Thickness B. & S. Gauge	Inside Diameter	Appr. Wt. Per Foot
5/16"	No. 18 (.040")	.232"	.129 lbs.
3/8"	No. 18 (.040")	.295"	.158 lbs.
7/16"	No. 18 (.040")	.357"	.190 lbs.
1/2"	No. 18 (.040")	.420"	.217 lbs.
9/16"	No. 18 (.040")	.482"	.251 lbs.
5/8"	No. 18 (.040")	.545"	.281 lbs.
3/4"	No. 17 (.045")	.660"	.370 lbs.

## SQUARE SEAMLESS BRASS TUBES

In 12-Foot Lengths

Outside Dimensions	Wall Thickness B. & S. Gauge	Appr. Wt. Per Foot	Outside Dimensions	Wall Thickness B. & S. Gauge	Appr. Wt. Per Foot
1/4" x 1/4"	No. 22 (.025")	.08 lbs.	7/8" x 7/8"	No. 22 (.025")	.32 lbs.
5/16" x 5/16"	No. 22 (.025")	.11 lbs.	7/8" x 7/8"	No. 18 (.040")	.50 lbs.
3/8" x 3/8"	No. 22 (.025")	.13 lbs.	1" x 1"	No. 22 (.025")	.36 lbs.
3/8" x 3/8"	No. 18 (.040")	.20 lbs.	1" x 1"	No. 18 (.040")	.57 lbs.
7/16" x 7/16"	No. 18 (.040")	.24 lbs.	1 1/8" x 1 1/8"	No. 16 (.050")	.80 lbs.
1/2" x 1/2"	No. 18 (.040")	.28 lbs.	1 1/4" x 1 1/4"	No. 18 (.040")	.72 lbs.
5/8" x 5/8"	No. 24 (.020")	.17 lbs.	1 1/4" x 1 1/4"	No. 16 (.050")	.89 lbs.
5/8" x 5/8"	No. 18 (.040")	.35 lbs.	1 1/2" x 1 1/2"	No. 16 (.050")	1.08 lbs.
3/4" x 3/4"	No. 22 (.025")	.27 lbs.	1 3/4" x 1 3/4"	No. 16 (.050")	1.27 lbs.
3/4" x 3/4"	No. 18 (.040")	.42 lbs.	2" x 2"	No. 16 (.050")	1.45 lbs.

## RECTANGULAR SEAMLESS BRASS TUBES

In 12-Foot Lengths

Outside Dimensions	Wall Thickness B. & S. Gauge	Appr. Wt. Per Foot	Outside Dimensions	Wall Thickness B. & S. Gauge	Appr. Wt. Per Foot
1/2" x 1/4"	No. 18 (.040")	.20 lbs.	1" x 1 1/2"	No. 16 (.050")	.52 lbs.
5/8" x 5/16"	No. 18 (.040")	.26 lbs.	1 1/4" x 5/8"	No. 16 (.050")	.66 lbs.
3/4" x 3/8"	No. 18 (.040")	.31 lbs.	1 1/2" x 3/4"	No. 14 (.064")	1.00 lbs.
3/4" x 1/2"	No. 16 (.050")	.43 lbs.	2" x 3/8"	No. 18 (.050")	.68 lbs.
1" x 3/8"	No. 18 (.040")	.39 lbs.			

Other Brass Tubing listed on page 95.

## HARD DRAWN SEAMLESS BRASS PIPE

Anaconda \*67

For Normally Corrosive Waters

In 12-Foot Lengths

### STANDARD PIPE SIZES

Size I. P. S.	Wall Thickness	Outside Diameter	Inside Diameter	Appr. Wt. Per Foot
1/8"	.062"	.405"	.281"	.25 lbs.
1/4"	.082"	.540"	.375"	.44 lbs.
3/8"	.090"	.675"	.494"	.61 lbs.
1/2"	.107"	.840"	.625"	.91 lbs.
3/4"	.114"	1.050"	.822"	1.24 lbs.
1"	.126"	1.315"	1.062"	1.74 lbs.
1 1/4"	.146"	1.660"	1.368"	2.56 lbs.
1 1/2"	.150"	1.900"	1.600"	3.04 lbs.
2"	.156"	2.375"	2.062"	4.02 lbs.
2 1/2"	.187"	2.875"	2.500"	5.83 lbs.
3"	.219"	3.500"	3.062"	8.31 lbs.
3 1/2"	.250"	4.000"	3.500"	10.85 lbs.
4"	.250"	4.500"	4.000"	12.30 lbs.
4 1/2"	.250"	5.000"	4.500"	13.74 lbs.
5"	.250"	5.563"	5.062"	15.40 lbs.
6"	.250"	6.625"	6.125"	18.44 lbs.

## HARD DRAWN SEAMLESS BRASS PIPE

Anaconda \*67

In 12-Foot Lengths

### EXTRA HEAVY SIZES

Size I. P. S.	Wall Thickness	Outside Diameter	Inside Diameter	Approx. Weight Per Foot
1/8"	.100"	.405"	.205"	.35 lbs.
1/4"	.123"	.540"	.294"	.59 lbs.
3/8"	.127"	.675"	.421"	.81 lbs.
1/2"	.149"	.840"	.542"	1.19 lbs.
3/4"	.157"	1.050"	.736"	1.62 lbs.
1"	.182"	1.315"	.951"	2.39 lbs.
1 1/4"	.194"	1.660"	1.272"	3.29 lbs.
1 1/2"	.203"	1.900"	1.494"	3.99 lbs.
2"	.221"	2.375"	1.933"	5.51 lbs.
2 1/2"	.280"	2.875"	2.315"	8.41 lbs.
3"	.304"	3.500"	2.892"	11.25 lbs.
4"	.341"	4.500"	3.818"	16.41 lbs.

\* Trade Mark "67" Reg. U. S. Patent Office.

## HARD DRAWN SEAMLESS RED BRASS PIPE

(Anaconda #85)

For Highly Corrosive Waters  
In 12-Foot Lengths

### STANDARD PIPE SIZES

Size I. P. S.	Wall Thickness	Outside Diameter	Inside Diameter	Approx. Weight Per Foot
1/8"	.062"	.405"	.281"	.26 lbs.
3/8"	.090"	.675"	.494"	.63 lbs.
1/2"	.107"	.840"	.625"	.94 lbs.
3/4"	.114"	1.050"	.822"	1.27 lbs.
1"	.126"	1.315"	1.062"	1.80 lbs.
1 1/4"	.146"	1.660"	1.368"	2.63 lbs.
1 1/2"	.150"	1.900"	1.600"	3.13 lbs.
2"	.156"	2.375"	2.062"	4.14 lbs.
2 1/2"	.187"	2.875"	2.500"	6.00 lbs.
3"	.219"	3.500"	3.062"	8.56 lbs.

\*Trade Mark "85" Reg. U. S. Patent Office.

## ROUGH THREADED CAST BRASS PIPE FITTINGS

### IRON PIPE SIZES

Malleable and Extra Heavy Patterns

90° Elbows	Lock Nuts	Caps	Unions
45° Elbows	Reducers	Plugs	Return Bends
Street Ells	Bushings	Nipples	Gate Valves
Couplings	Crosses	Close Nipples	Globe Valves

## SOFT BRASS WIRE IN COILS

About 40 Pounds

Diameter B. & S. Gauge	Approx. Weight Per 100 Feet	Diameter B. & S. Gauge	Approx. Weight Per 100 Feet
No. 24 (.020")	.117 lbs.	No. 8 (.128")	4.747 lbs.
No. 23 (.022")	.147 lbs.	No. 7 (.144")	5.986 lbs.
No. 22 (.025")	.185 lbs.	No. 6 (.162")	7.544 lbs.
No. 21 (.028")	.234 lbs.	No. 5 (.181")	9.511 lbs.
No. 20 (.032")	.295 lbs.	No. 4 (.204")	12.000 lbs.
No. 19 (.036")	.371 lbs.	No. 3 (.229")	15.130 lbs.
No. 18 (.040")	.468 lbs.	1/4" (.250")	18.08 lbs.
No. 17 (.045")	.590 lbs.		
No. 16 (.050")	.742 lbs.	Diameter Stub's Gauge	Approx. Weight Per 100 Feet
No. 15 (.057")	.939 lbs.	No. 18 (.049")	.750 lbs.
No. 14 (.064")	1.181 lbs.	No. 13 (.095")	2.72 lbs.
No. 13 (.072")	1.490 lbs.	No. 12 (.109")	3.42 lbs.
No. 12 (.081")	1.877 lbs.	No. 11 (.120")	4.20 lbs.
No. 11 (.091")	2.365 lbs.	No. 10 (.134")	5.28 lbs.
No. 10 (.102")	2.985 lbs.	No. 9 (.148")	6.66 lbs.
No. 9 (.114")	3.762 lbs.	No. 7 (.180")	9.48 lbs.



**SPRING TEMPER BRASS WIRE IN COILS**

About 40 Pounds			
Diameter B. & S. Gauge	Approx. Weight Per 100 Feet	Diameter B. & S. Gauge	Approx. Weight Per 100 Feet
No. 23 (.022")	.147 lbs.	No. 13 (.072")	1.490 lbs.
No. 22 (.025")	.185 lbs.	No. 12 (.081")	1.877 lbs.
No. 21 (.028")	.234 lbs.	*No. 12 (.109")	3.42 lbs.
No. 20 (.032")	.295 lbs.	No. 11 (.091")	2.375 lbs.
No. 19 (.036")	.371 lbs.	No. 10 (.102")	2.985 lbs.
No. 18 (.040")	.468 lbs.	No. 9 (.114")	3.762 lbs.
No. 17 (.045")	.590 lbs.	No. 8 (.128")	4.747 lbs.
No. 16 (.050")	.742 lbs.	No. 7 (.144")	6.004 lbs.
No. 15 (.057")	.939 lbs.	No. 6 (.162")	7.544 lbs.
No. 14 (.064")	1.181 lbs.	No. 5 (.181")	9.511 lbs.
		No. 4 (.204")	12.000 lbs.

\* This size is Stubs' gauge.

**SOFT LOW BRASS WIRE IN COILS**

(80% Copper) About 40 Pounds			
Diameter B. & S. Gauge	Approx. Weight Per 100 Feet	Diameter B. & S. Gauge	Approx. Weight Per 100 Feet
No. 24 (.020")	.119 lbs.	No. 14 (.064")	1.211 lbs.
No. 22 (.025")	.189 lbs.	No. 12 (.081")	1.925 lbs.
No. 20 (.032")	.302 lbs.		
No. 19 (.036")	.379 lbs.	Diameter Stubs' Gauge	Approx. Weight Per 100 Feet
No. 18 (.040")	.479 lbs.	No. 10 (.134")	5.300 lbs.
No. 17 (.045")	.603 lbs.	No. 9 (.148")	6.500 lbs.
No. 15 (.057")	.991 lbs.	No. 8 (.165")	8.000 lbs.

**SOFT RICH LOW BRASS IN ROLLS**

(85% Copper) About 50 to 75 Pounds Each					
Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot	Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot
No. 31 (.009")	10"	.337 lbs.	No. 25 (.018")	12"	.812 lbs.
No. 28 (.012")	10"	.475 lbs.	No. 25 (.018")	14"	.945 lbs.
No. 28 (.012")	12"	.572 lbs.	No. 24 (.020")	6"	.456 lbs.
No. 28 (.012")	14"	.665 lbs.	No. 24 (.020")	8"	.608 lbs.
No. 27 (.014")	6"	.322 lbs.	No. 24 (.020")	10"	.760 lbs.
No. 26 (.016")	6"	.361 lbs.	No. 24 (.020")	14"	1.064 lbs.
No. 26 (.016")	8"	.480 lbs.	No. 23 (.022")	6"	.513 lbs.
No. 26 (.016")	10"	.600 lbs.	No. 23 (.022")	8"	.684 lbs.
No. 26 (.016")	12"	.721 lbs.	No. 23 (.022")	10"	.855 lbs.
No. 26 (.016")	14"	.840 lbs.	No. 23 (.022")	12"	1.025 lbs.
No. 25 (.018")	6"	.406 lbs.	No. 23 (.022")	14"	1.197 lbs.
No. 25 (.018")	10"	.675 lbs.	No. 22 (.025")	6"	.577 lbs.

(Continued on next page)

## SOFT RICH LOW BRASS IN ROLLS (Cont.)

(85% Copper)

About 50 to 75 Pounds Each

Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot	Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot
No. 22 (.025")	8"	.768 lbs.	No. 20 (.032")	14"	1.694 lbs.
No. 22 (.025")	10"	.960 lbs.	No. 19 (.036")	6"	.814 lbs.
No. 22 (.025")	12"	1.153 lbs.	No. 18 (.040")	6"	.915 lbs.
No. 22 (.025")	14"	1.344 lbs.	No. 18 (.040")	10"	1.530 lbs.
No. 21 (.028")	6"	.647 lbs.	No. 18 (.040")	12"	1.830 lbs.
No. 20 (.032")	6"	.726 lbs.	No. 16 (.050")	6"	1.158 lbs.
No. 20 (.032")	10"	1.210 lbs.	No. 14 (.064")	6"	1.455 lbs.
No. 20 (.032")	12"	1.452 lbs.			

## ROUND RICH LOW BRASS TUBES

(85% Copper)

Outside Diam.	Wall Thickness Stub's Gauge	Inside Diam.	Appr. Wt. Per Foot	Outside Diam.	Wall Thickness Stub's Gauge	Inside Diam.	Appr. Wt. Per Foot
1½"	No. 16 (.065")	1.370	1.10 lbs.	2"	No. 16 (.065")	1.870	1.57 lbs.

## RECTANGULAR RICH LOW BRASS TUBES

(85% Copper)

In 15-Foot Lengths

Outside Dimensions	Wall Thickness B. & S. Gauge	Appr. Wt. Per Foot	Outside Dimensions	Wall Thickness B. & S. Gauge	Appr. Wt. Per Foot
5/8" x 3/8"	No. 14 (.064")	.43 lbs.	2" x 1/2"	No. 14 (.064")	1.16 lbs.
5/8" x 1/2"	No. 14 (.064")	.49 lbs.	2" x 3/4"	No. 14 (.064")	1.59 lbs.
3/4" x 3/8"	No. 14 (.064")	.49 lbs.	2" x 1"	No. 14 (.064")	1.41 lbs.
3/4" x 1/2"	No. 14 (.064")	.56 lbs.	2½" x 1¼"	No. 12 (.081")	2.15 lbs.
1" x 3/8"	No. 14 (.064")	.62 lbs.	3" x 1¼"	No. 12 (.081")	2.43 lbs.
1" x 1/2"	No. 14 (.064")	.67 lbs.	*3" x 1½"	No. 12 (.081")	2.68 lbs.
1" x 3/4"	No. 14 (.064")	.78 lbs.	*3" x 1¾"	No. 12 (.081")	2.84 lbs.
1¼" x 3/8"	No. 14 (.064")	.74 lbs.	3½" x 1½"	No. 12 (.081")	2.99 lbs.
1¼" x 1/2"	No. 14 (.064")	.81 lbs.	*4" x 1½"	No. 12 (.081")	3.30 lbs.
1¼" x 5/8"	No. 14 (.064")	.87 lbs.	*4" x 1¾"	No. 12 (.081")	3.45 lbs.
1½" x 1/2"	No. 14 (.064")	.92 lbs.	*4½" x 1½"	No. 12 (.081")	3.62 lbs.
1½" x 3/4"	No. 14 (.064")	1.04 lbs.	*4½" x 1¾"	No. 12 (.081")	3.77 lbs.
1½" x 1"	No. 12 (.081")	1.44 lbs.	*5" x 1¾"	No. 12 (.081")	4.08 lbs.
			*5½" x 1¾"	No. 12 (.081")	4.39 lbs.

\*Carried in 10-foot exact lengths only.

## SQUARE RICH LOW BRASS TUBES

(85% Copper)

In 12 to 15 Foot Lengths

Outside Dimensions	Wall Thickness B. & S. Gauge	Appr. Wt. Per Foot	Outside Dimensions	Wall Thickness B. & S. Gauge	Appr. Wt. Per Foot
3/8" x 3/8"	No. 14 (.064")	.30 lbs.	1¼" x 1¼"	No. 14 (.064")	1.17 lbs.
1/2" x 1/2"	No. 14 (.064")	.43 lbs.	1½" x 1½"	No. 14 (.064")	1.41 lbs.
5/8" x 5/8"	No. 14 (.064")	.55 lbs.	2" x 2"	No. 14 (.064")	1.91 lbs.
3/4" x 3/4"	No. 14 (.064")	.68 lbs.	2½" x 2½"	No. 14 (.064")	2.40 lbs.
1" x 1"	No. 14 (.064")	.92 lbs.	3" x 3"	No. 14 (.064")	2.89 lbs.

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## ROUND MUNTZ METAL RODS

In 10 to 12 Foot Lengths

Suitable for Forging, Etc.

Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot
1/4"	.181 lbs.	7/8"	2.218 lbs.	1 1/2"	6.512 lbs.
5/16"	.283 lbs.	1"	2.887 lbs.	1 5/8"	7.654 lbs.
3/8"	.407 lbs.	1 1/8"	3.658 lbs.	1 3/4"	8.875 lbs.
1/2"	.724 lbs.	1 3/16"	4.080 lbs.	2"	11.500 lbs.
5/8"	1.132 lbs.	1 1/4"	4.520 lbs.	2 1/4"	14.600 lbs.
3/4"	1.633 lbs.	1 3/8"	5.470 lbs.	2 1/2"	18.000 lbs.

## COLD ROLLED MUNTZ METAL SHEETS (HALF HARD YELLOW METAL)

Large Sizes

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 26 (.016")	24"x	48"-	6 lbs.	No. 14 (.064")	36"x	96"-	68 lbs.
No. 26 (.016")	30"x	60"-	9 lbs.	No. 14 (.064")	36"x	120"-	87 lbs.
No. 24 (.020")	24"x	48"-	7 lbs.	No. 14 (.064")	36"x	144"-	101 lbs.
No. 24 (.020")	30"x	60"-	11 lbs.	No. 13 (.072")	24"x	48"-	25 lbs.
No. 23 (.022")	24"x	48"-	8 lbs.	No. 12 (.081")	24"x	48"-	28 lbs.
No. 22 (.025")	24"x	48"-	9 lbs.	No. 12 (.081")	24"x	96"-	56 lbs.
No. 22 (.025")	30"x	60"-	14 lbs.	No. 12 (.081")	24"x	144"-	84 lbs.
No. 21 (.028")	24"x	48"-	10 lbs.	No. 12 (.081")	30"x	96"-	71 lbs.
No. 20 (.032")	24"x	48"-	11 lbs.	No. 12 (.081")	30"x	120"-	88 lbs.
No. 20 (.032")	30"x	60"-	18 lbs.	No. 12 (.081")	30"x	144"-	105 lbs.
No. 20 (.032")	30"x	96"-	28 lbs.	No. 12 (.081")	36"x	96"-	85 lbs.
No. 20 (.032")	36"x	96"-	34 lbs.	No. 12 (.081")	36"x	120"-	109 lbs.
No. 18 (.040")	24"x	48"-	14 lbs.	No. 12 (.081")	36"x	144"-	126 lbs.
No. 18 (.040")	30"x	60"-	22 lbs.	No. 11 (.091")	24"x	48"-	32 lbs.
No. 18 (.040")	36"x	96"-	42 lbs.	No. 11 (.091")	30"x	60"-	50 lbs.
No. 17 (.045")	24"x	48"-	16 lbs.	No. 11 (.091")	30"x	96"-	80 lbs.
No. 17 (.045")	30"x	60"-	25 lbs.	No. 11 (.091")	36"x	96"-	96 lbs.
No. 16 (.050")	24"x	48"-	18 lbs.	No. 10 (.102")	30"x	144"-	135 lbs.
No. 16 (.050")	30"x	60"-	28 lbs.	No. 10 (.102")	36"x	96"-	108 lbs.
No. 16 (.050")	36"x	96"-	54 lbs.	No. 10 (.102")	36"x	144"-	162 lbs.
No. 14 (.064")	24"x	48"-	23 lbs.	1/8" (.125")	24"x	48"-	44 lbs.
No. 14 (.064")	24"x	96"-	45 lbs.	1/8" (.125")	24"x	96"-	88 lbs.
No. 14 (.064")	24"x	144"-	68 lbs.	1/8" (.125")	24"x	144"-	132 lbs.
No. 14 (.064")	30"x	60"-	35 lbs.	1/8" (.125")	30"x	60"-	69 lbs.
No. 14 (.064")	30"x	96"-	57 lbs.	1/8" (.125")	30"x	96"-	110 lbs.
No. 14 (.064")	30"x	120"-	72 lbs.	1/8" (.125")	30"x	144"-	165 lbs.
No. 14 (.064")	30"x	144"-	85 lbs.	1/8" (.125")	36"x	96"-	132 lbs.

(Continued on next page)



## COLD ROLLED MUNTZ METAL SHEETS (Cont.) (HALF HARD YELLOW METAL)

Large Sizes					
Thickness B. & S. Gauge	Width Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width Length	Appr. Wt. Per Sheet
1/8" (.125")	36"x 144"	198 lbs.	1/4" (.250")	24"x 48"	88 lbs.
No. 7 (.144")	24"x 48"	51 lbs.	1/4" (.250")	30"x 60"	138 lbs.
3/16" (.187")	24"x 48"	66 lbs.	3/8" (.375")	24"x 48"	132 lbs.
3/16" (.187")	30"x 60"	103 lbs.	1/2" (.500")	24"x 48"	176 lbs.

For weight per square foot see pages 221 through 224.

**Other Muntz Metal Products listed on Page 95.**

### \*BRASS MACHINE BOLTS

Hexagon Head With Hexagon Nut  
American Standard  
In Lengths of

Diameter										
1/4"-20 1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	3"				
5/16"-18 1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	3"	4"			
3/8"-16 1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	3"	4"			
1/2"-13 1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	3"	4"	4 1/2"	5"	6"
5/8"-11 —	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	3"	3 1/2"	4"	4 1/2"	5"
3/4"-10 —	—	—	—	2"	2 1/2"	3"	3 1/2"	4"	4 1/2"	5"

### \*BRASS CARRIAGE BOLTS

Round Head—Square Neck With Hexagon Nut  
American Standard  
In Lengths of

Diameter										
1/4"-20	1 1/2"	1 3/4"	2"	2 1/2"	3"	4"				
5/16"-18	1 1/2"	1 3/4"	2"	2 1/2"	3"	4"				
3/8"-16	1 1/2"	1 3/4"	2"	2 1/2"	3"	4"				
1/2"-13	—	—	2"	2 1/2"	3"	4"	5"	6"		

### BRASS CORNICE BOLTS

With Hexagon or Square Nuts  
National Standard Coarse Threads

#### ROUND HEAD AND FLAT HEAD

In Lengths of

Diameter										
3/16"-24	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"			
1/4"-20	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"			

### \*BRASS STUD BOLTS AND THREADED RODS

With or Without Hexagon Nuts or Washers  
Threaded With Little Delay from Rods in Warehouse Stock.

Diameters: 1/4" To 1 1/4" Incl.

Lengths: To suit your requirements.

Extra Large Size Stud Bolts or Threaded Rods can be made to order promptly in Diameters of 1 3/8" to 3" incl.

\*Also furnished in Naval Bronze. Prompt shipment.



# ANACONDA BRASS •

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## HEXAGON \*BRASS NUTS

American Standard—Heavy  
MILLED SEMI-FINISHED  
In Sizes of

$\frac{1}{4}$ "-20  $\frac{5}{16}$ "-18  $\frac{3}{8}$ "-16  $\frac{7}{16}$ "-14  $\frac{1}{2}$ "-13  
 $\frac{5}{8}$ "-11  $\frac{3}{4}$ "-10  $\frac{7}{8}$ "-9 1"-8  $1\frac{1}{8}$ "-7  $1\frac{1}{4}$ "-7

### ROUGH CAST

In Sizes of

$\frac{1}{2}$ "-13  $\frac{5}{8}$ "-11  $\frac{3}{4}$ "-10  $\frac{7}{8}$ "-9 1"-8  $1\frac{1}{8}$ "-7  
 $1\frac{1}{4}$ "-7  $1\frac{3}{8}$ "-6  $1\frac{1}{2}$ "-6  $1\frac{5}{8}$ "-5 $\frac{1}{2}$   $1\frac{3}{4}$ "-5 2"-4 $\frac{1}{2}$

\*Also furnished in Naval Bronze. Prompt shipment.

## HEXAGON BRASS JAM NUTS

In Sizes of

$\frac{1}{4}$ "-20  $\frac{5}{16}$ "-18  $\frac{3}{8}$ "-16  $\frac{7}{16}$ "-14  $\frac{1}{2}$ "-13  
 $\frac{5}{8}$ "-11  $\frac{3}{4}$ "-10  $\frac{7}{8}$ "-9 1"-8

## BRASS MACHINE SCREW NUTS

American National Standard Coarse Threads  
In One Gross Boxes

## HEXAGON AND SQUARE

In Sizes of

Nos. 2/56 3/48 4/40 6/32 8/32 \*\*10/32 10/24  
 $\frac{1}{4}$ "-20  $\frac{5}{16}$ "-18  $\frac{3}{8}$ "-16

## BRASS WING NUTS

American National Standard Coarse Threads  
For Screws, Bolts and Rods

In Sizes of

Nos. 6/32 8/32 \*\*10/32 10/24  
 $\frac{1}{4}$ "-20  $\frac{5}{16}$ "-18  $\frac{3}{8}$ "-16  $\frac{1}{2}$ "-13

## HEXAGON BRASS CAP NUTS

(Also Known as Acorn Nuts)

American National Standard Coarse Threads  
For Screws, Bolts and Rods

In Sizes of

Nos. 6/32 8/32 \*\*10/32 10/24  
 $\frac{1}{4}$ "-20  $\frac{5}{16}$ "-18  $\frac{3}{8}$ "-16  $\frac{1}{2}$ "-20

## NICKEL PLATED

In Sizes of

Nos. 6/32 8/32 \*\*10/32 10/24  
 $\frac{1}{4}$ "-20  $\frac{5}{16}$ "-18  $\frac{3}{8}$ "-16  $\frac{1}{2}$ "-13

\*\*Fine threads.

## BRASS COTTER PINS

In Sizes of

Diameters

1/16"	1/2"	5/8"	3/4"	1"			
3/32"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	
1/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"
5/32"	—	—	3/4"	1"	1 1/4"	1 1/2"	2"
3/16"	—	—	3/4"	1"	1 1/4"	1 1/2"	2" 2 1/2" 3"
1/4"	—	—	—	1"	1 1/4"	1 1/2"	2" 2 1/2" 3"

## BRASS MACHINE SCREWS

American National Standard Coarse Threads  
In One Gross Boxes

### ROUND HEAD AND FLAT HEAD

In Sizes of

Diameters:	Nos.	2/56	3/48	4/40	6/32	8/32	*10/32	10/24
		1/4"-20	5/16"-18	3/8"-16	1/2"-13			

Lengths: From 1/4" to 3", Incl.

### OVAL (COUNTERSUNK) HEAD AND FILLISTER HEAD

In Sizes of

Diameters:	Nos.	6/32	8/32	*10/32	10/24
		1/4"-20	5/16"-18	3/8"-16	

Lengths: From 1/4" to 3", Incl.

## MUNTZ METAL MACHINE SCREWS

In One Gross Boxes.

### Flat Head and Jackson Head

Diameters:	Nos.	6/32	8/32	10/24	*10/32

Lengths: From 1/4" to 1"

\*Fine threads.

## BRASS WOOD SCREWS

American National Standard  
In One Gross Boxes

### FLAT HEAD — ROUND HEAD — OVAL HEAD

In Sizes of

Diameters:	Nos.	0	1	2	3	4	5	6	7	8	9	10	12	14	16 and 18
------------	------	---	---	---	---	---	---	---	---	---	---	----	----	----	-----------

Lengths: Varying from 1/4" to 3 1/2"

### † BRASS LAG SCREWS SQUARE HEAD—GIMLET POINT

In Lengths of

Diameters

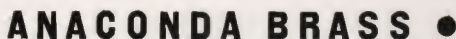
1/4"	1 1/2"	2"	2 1/2"	3"			
5/16"	1 1/2"	2"	2 1/2"	3"			
3/8"	—	2"	2 1/2"	3"	3 1/2"	4"	
1/2"	—	2"	2 1/2"	3"	3 1/2"	4"	4 1/2" 5" 6"
5/8"	—	—	—	3"	—	4"	— 5" 6"

† Also furnished in Naval Bronze. Prompt Shipment.

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## WEIGHTS OF BRASS RIVETS ROUND AND \*COUNTERSUNK HEAD

In Lengths of

Diameter	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"
	Approximate Number Per Pound											
1/16"	4600	3500	3000	2500	1980							
3/32"	1700	1390	1180	1020	880	770						
1/8"	—	650	580	515	445	370	315	275				
3/16"	—	—	210	185	170	145	125	110	90	75	65	
1/4"	—	—	—	—	80	70	60	55	45	40	35	25
5/16"	—	—	—	—	—	40	35	32	28	24	21	17
3/8"	—	—	—	—	—	30	25	21	18	16	13	10

\*Countersunk Head Rivets contain approximately 10% more Rivets per pound than for Round Head.

## BRASS WASHERS

Standard Sizes

For Screws, Bolts and Rods

### BOLT SIZES

Size	Outside Diam.	Inside Diam.	Thickness	App. No. Per lb.	Size	Outside Diam.	Inside Diam.	Thickness	App. No. Per lb.
1/4"	- 5/8"	x 9/32"	x .050"	257	5/8"	- 1 5/8"	x 1 1/16"	x .102"	28
5/16"	- 13/16"	x 1 1/32"	x .064"	120	3/4"	- 2"	x 1 3/16"	x .114"	15
3/8"	- 1"	x 13/32"	x .064"	78	7/8"	- 2 1/4"	x 1 5/16"	x .128"	12
7/16"	- 1 1/4"	x 1/2"	x .081"	53	1"	- 2 1/2"	x 1 1/16"	x .128"	7
1/2"	- 1 3/8"	x 9/16"	x .081"	32					

### SMALL PATTERN

No. 2 - 7/32"	x .092"	x .018"	5950	No. 12 - 1/2"	x .228"	x .040"	525
No. 3 - 1/4"	x .105"	x .020"	4000	No. 14 - 9/16"	x .260"	x .040"	420
No. 4 - 9/32"	x .120"	x .025"	2500	No. 16 - 5/8"	x .280"	x .040"	340
No. 6 - 3/8"	x .150"	x .032"	1100	No. 18 - 1 1/16"	x 5/16"	x .050"	230
No. 8 - 3/8"	x .170"	x .032"	1170	No. 20 - 3/4"	x 1 1/32"	x .064"	150
No. 10 - 7/16"	x .195"	x .036"	760	No. 24 - 7/8"	x .385"	x .064"	110

### LARGE PATTERN

No. 8 - 7/16"	x .170"	x .036"	725	No. 16 - 3/4"	x .280"	x .064"	135
No. 10 - 1/2"	x .195"	x .040"	480	No. 18 - 7/8"	x 5/16"	x .064"	100
No. 12 - 9/16"	x .228"	x .040"	380	No. 20 - 7/8"	x 1 1/32"	x .064"	103
No. 14 - 1 1/16"	x .260"	x .050"	210	No. 24 - 1"	x .385"	x .081"	64

## BRASS FINISHING WASHERS

Countersunk Type

Plain (Bright) Finish and Nickel Plated

For use with Oval (Countersunk) Head Wood Screws and Machine Screws.

In Sizes of

Nos. 6 8 10 12

## \*BRASS (SOLID) BALLS

In Diameters of

$\frac{1}{8}$ "  $\frac{5}{32}$ "  $\frac{3}{16}$ "  $\frac{7}{32}$ "  $\frac{1}{4}$ "  $\frac{5}{16}$ "  $\frac{3}{8}$ "  
 $\frac{7}{16}$ "  $\frac{1}{2}$ "  $\frac{5}{8}$ "  $\frac{3}{4}$ "  $\frac{7}{8}$ " 1"

\*Also furnished in Bronze. Prompt shipment. Brass or Bronze Balls for Ornamental purposes where accuracy of diameter is not essential can be milled from Bar Stock available.

## BRASS ESCUTCHEON PINS

In One Pound Boxes

In Lengths of

Diameter Stub's Gauge	$\frac{1}{4}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	$\frac{7}{8}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	2"
	Approximate Number Per Pound									
No. 10 (.134")	—	—	448	296	256	243	230	217	190	150
No. 11 (.120")	—	—	468	360	312	290	260	250	200	160
No. 12 (.109")	—	—	650	460	416	400	336	272	212	170
No. 13 (.095")	—	—	948	672	528	480	400	380	320	210
No. 14 (.083")	—	1310	1100	950	830	692	600	432	378	272
No. 15 (.072")	—	1820	1376	1152	960	888	720	576	580	
No. 16 (.065")	—	2240	1720	1460	1275	1130	980	720	592	
No. 17 (.058")	3540	2700	2076	1812	1500	1185	1051	928		
No. 18 (.049")	4972	3175	2450	2250	2200	1740	1520			

## BRASS WIRE CLOTH

Market Grade

All 36" Wide

Mesh	Opening	Dia. Wire	Mesh	Opening	Dia. Wire	Mesh	Opening	Dia. Wire
2	.437"	.063"	14	.048"	.023"	50	.011"	.0090"
3	.279"	.054"	16	.042"	.020"	60	.0097"	.0075"
4	.203"	.047"	18	.038"	.017"	70	.0073"	.0070"
6	.132"	.035"	20	.034"	.016"	80	.0068"	.0057"
8	.097"	.028"	24	.026"	.015"	90	.0059"	.0050"
10	.072"	.028"	30	.021"	.012"	100	.0055"	.0045"
12	.058"	.025"	40	.015"	.010"			

Narrower or Wider Widths of Standard Mesh are also available for shipment from Mill Stocks. Consult us for Wire Cloth other than Market Grade. Also see Page 209 for additional Wire Cloth Products.



# • ANACONDA BRASS



## BRASS STRAINER CLOTH

Not Tinned

Standard Grades

Rolls 12" x 60"

and

Rolls 36" Wide x \*100 Lineal Feet

In Meshes of

30 40 50 60 70 80 90 100

\*Also cut in shorter lengths.

## BRASS PRODUCTS

For Prompt Shipment from Mill



ENGRAVERS' BRASS  
THIN GAUGE BRASS  
SIGN BRASS  
ETCHING BRASS  
SOFT SHIM BRASS  
BRASS PLATERS' METAL



## MUNTZ (YELLOW) METAL SHEATHING

Muntz Metal Sheathing Nails



## BRASS TUBES

Hexagon—Oval—Reeded  
Rope Pattern—Fancy Pattern  
Open Seam

ALUM.

BRASS

# **BRONZE**

## **SECTION**



**Includes**

**NICKEL SILVER**

**AMBRAC**

**COMMERCIAL BRONZE**

**ACID DIPPED BRONZE**

**ARCHITECTURAL BRONZE**

**PHOSPHOR BRONZE**

**TOBIN BRONZE**

**EVERDUR**

**In All Commercial Forms**

BRONZE

COPPER





# BRONZE SECTION

## INDEX

PAGES	PAGES
Nickel Silver .97 to 100	Architectoral
Ambrac .....99, 100	Bronze ....106, 107
Commercial	Phosphor
Bronze ..101 to 104	Bronze ....108, 109
Acid Dipped	Tobin Bronze.....110
Bronze .....105	Everdur....111 to 115

## CUTTING INFORMATION

Consistent with economical practice, we will cut stock sizes of Bronze to your particular requirements within commercial limits and tolerances.

### Sawing

We are equipped to saw Bronze Sheet up to 1" thick with a tolerance of  $1/32$ " plus or minus. The tolerance on the square is  $1/32$ " plus or minus in 3 feet or  $1/16$ " in 6 feet.

### Shearing

We are equipped to shear Bronze Sheets up to 144" in length and  $3/16$ " in thickness with a tolerance of  $1/32$ " plus or minus. Any length sheet over 144" can also be sheared with a  $1/32$ " plus or minus tolerance, in thicknesses up to  $1/8$ ". On sheets over 144" however, the width of the sheet left after cutting must not exceed 18". We can shear  $1/4$ " to  $1/2$ " wide in 5' lengths; wider than  $1/2$ " up to 144" long.

For precision work, sheets should be sheared where possible  $1/8$ " or  $1/4$ " larger than required and machined to size by the customer.

We can cut Bronze Circles from 8" to 50" in diameter in thicknesses up to .064. Circles 3" to 8" in diameter to .032 thickness.

### Slitting

We are equipped to slit Bronze in coils from  $1/4$ " to 18" in width, in  $1/64$ " increments with a tolerance of .003" plus or minus, in thicknesses up to No. 14 B&S Gauge. It can be wound on mandrels 4", 6" or 8" in diameter.

### Cutting and Threading

We are equipped to cut all sizes of Bronze rod, tube, and pipe. We can thread Bronze rods from  $3/8$ " to  $1 1/4$ " in diameter and Bronze pipe size tubing from  $1/8$ " to 3".

## THE BRONZE SECTION

This Bronze Section includes NICKEL SILVER, AMBAC, COMMERCIAL BRONZE, ACID DIPPED BRONZE, ARCHITECTURAL BRONZE, PHOSPHOR BRONZE, TOBIN BRONZE and EVERDUR.

As stated on page 65, ANACONDA METALS include Copper and Copper alloyed with Zinc, Tin, Nickel, Aluminum, Lead, Silicon, Manganese and other elements in all combinations where the resulting alloys can be manufactured in commercial forms. These various alloys are usually loosely grouped under the terms of Brass, Nickel Silver and the Bronzes.

The so-called Brass Alloys including YELLOW BRASS, "67" BRASS, RED "85" BRASS, SPRING BRASS, LOW BRASS, RICH LOW BRASS and MUNTZ METAL are listed in the Brass Section of this Stock List beginning with page 65, with the exception of Commercial Bronze which is listed in the Bronze Section because of its name, together with all of the true Bronzes and the Nickel Silvers.

For the complete Description, Composition and Mechanical and Physical Properties of all of the Copper Alloys, see pages 65 to 69.

### QUARTER HARD 18% NICKEL SILVER SHEETS POLISHED ONE SIDE

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 24 (.020")	12"x	96"	7.50 lbs.	No. 20 (.032")	36"x	96"	35.00 lbs.
No. 24 (.020")	18"x	96"	11.00 lbs.	No. 18 (.040")	12"x	96"	15.00 lbs.
No. 24 (.020")	20"x	96"	12.25 lbs.	No. 18 (.040")	18"x	96"	21.20 lbs.
No. 24 (.020")	24"x	96"	14.75 lbs.	No. 18 (.040")	24"x	96"	29.50 lbs.
No. 24 (.020")	30"x	96"	18.25 lbs.	No. 18 (.040")	30"x	96"	36.70 lbs.
No. 24 (.020")	36"x	96"	22.00 lbs.	No. 16 (.051")	12"x	96"	18.60 lbs.
No. 22 (.025")	12"x	96"	9.25 lbs.	No. 16 (.051")	36"x	96"	41.12 lbs.
No. 22 (.025")	18"x	96"	14.00 lbs.	No. 14 (.064")	12"x	96"	23.50 lbs.
No. 22 (.025")	20"x	96"	15.50 lbs.	No. 14 (.064")	30"x	120"	73.00 lbs.
No. 22 (.025")	24"x	96"	18.50 lbs.	No. 14 (.064")	36"x	120"	87.50 lbs.
No. 22 (.025")	30"x	96"	23.00 lbs.	No. 12 (.081")	30"x	120"	92.00 lbs.
No. 22 (.025")	36"x	96"	27.75 lbs.	No. 12 (.081")	36"x	120"	110.00 lbs.
No. 20 (.032")	12"x	96"	11.75 lbs.	No. 10 (.102")	36"x	120"	139.00 lbs.
No. 20 (.032")	18"x	96"	17.50 lbs.				

**QUARTER HARD 18% NICKEL SILVER SHEETS**  
**PLAIN—NOT POLISHED**

In 8-Foot Sheets

Thickness B. & S. Gauge	Width	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Appr. Wt. Per Sheet
No. 22	12"	9.25 lbs.	No. 14	12"	23.50 lbs.
No. 20	12"	11.75 lbs.	No. 11	12"	33.00 lbs.
No. 18	12"	14.75 lbs.	1/8"	12"	45.50 lbs.
No. 16	12"	18.50 lbs.			

**SOFT 18% NICKEL SILVER IN ROLLS**

About 50 Pounds Each

Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot	Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot
No. 31 (.008")	10"	.405 lbs.	No. 22 (.025")	8"	.770 lbs.
No. 30 (.010")	6"	.228 lbs.	No. 22 (.025")	12"	1.154 lbs.
No. 30 (.010")	8"	.304 lbs.	No. 21 (.028")	6"	.648 lbs.
No. 28 (.012")	6"	.288 lbs.	No. 20 (.032")	6"	.728 lbs.
No. 28 (.012")	8"	.388 lbs.	No. 20 (.032")	8"	.970 lbs.
No. 27 (.014")	6"	.323 lbs.	No. 20 (.032")	12"	1.445 lbs.
No. 26 (.016")	6"	.363 lbs.	No. 19 (.036")	6"	.817 lbs.
No. 26 (.016")	8"	.484 lbs.	No. 18 (.040")	6"	.921 lbs.
No. 25 (.018")	6"	.407 lbs.	No. 18 (.040")	8"	1.230 lbs.
No. 24 (.020")	6"	.457 lbs.	No. 18 (.040")	12"	1.840 lbs.
No. 24 (.020")	8"	.610 lbs.	No. 17 (.045")	6"	1.030 lbs.
No. 23 (.022")	6"	.514 lbs.	No. 16 (.050")	6"	1.160 lbs.
No. 22 (.025")	6"	.577 lbs.	No. 14 (.064")	6"	1.460 lbs.

**SPRING TEMPER 18% NICKEL SILVER IN ROLLS**

About 50 Pounds Each

Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot	Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Foot
No. 30 (.010")	6"	.228 lbs.	No. 24 (.020")	6"	.457 lbs.
No. 28 (.012")	6"	.288 lbs.	No. 22 (.025")	6"	.577 lbs.
No. 26 (.016")	6"	.363 lbs.			

**ROUND 12% NICKEL SILVER RODS**

In Random 12-Foot Lengths

Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot
1/8"	.045 lbs.	1/4"	.185 lbs.
5/32"	.078 lbs.	5/16"	.289 lbs.
3/16"	.103 lbs.	3/8"	.417 lbs.



## ROUND 10% NICKEL SILVER RODS

In Random 12-Foot Lengths

Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot
$\frac{7}{16}$ "	.551 lbs.	$\frac{3}{4}$ "	1.621 lbs.
$\frac{1}{2}$ "	.723 lbs.	$\frac{7}{8}$ "	2.222 lbs.
$\frac{5}{8}$ "	1.125 lbs.	1"	2.888 lbs.

## HARD DRAWN 18% NICKEL SILVER ANGLES

In Random 12-Foot Lengths  
(Outside Measurements)

Size of Legs	Thickness	Appr. Wt. Per Foot	Size of Legs	Thickness	Appr. Wt. Per Foot
1" x 1"	$\frac{1}{16}$ " (.062")	.451 lbs.	1" x 1"	$\frac{1}{8}$ " (.125")	.894 lbs.

## HARD DRAWN 18% NICKEL SILVER CHANNELS

In Random 12-Foot Lengths  
(Outside Measurements)

Leg	Size Base	Leg	Thickness	Approx. Weight Per Foot
$\frac{3}{8}$ "	x $\frac{3}{8}$ "	x $\frac{3}{8}$ "	No. 18 B. & S. (.040")	.159 lbs.
$\frac{3}{8}$ "	x $\frac{9}{16}$ "	x $\frac{3}{8}$ "	No. 18 B. & S. (.040")	.187 lbs.
$\frac{3}{8}$ "	x $\frac{5}{8}$ "	x $\frac{3}{8}$ "	No. 18 B. & S. (.040")	.196 lbs.
$\frac{9}{16}$ "	x $\frac{9}{16}$ "	x $\frac{9}{16}$ "	No. 18 B. & S. (.040")	.245 lbs.

## ROUND \*AMBRAC (20% NICKEL) TUBES

In 12-Foot Lengths

Outside Diameter	Wall Thickness B. & S. and Stubs' Ga.	Inside Diameter	Approx. Weight Per Foot
$\frac{1}{2}$ "	No. 18 S. G. (.049")	.402"	.260 lbs.
$\frac{5}{8}$ "	No. 18 S. G. (.049")	.527"	.332 lbs.
$\frac{3}{4}$ "	No. 19 S. G. (.042")	.666"	.338 lbs.
1"	No. 18 S. G. (.049")	.902"	.545 lbs.
$1\frac{1}{4}$ "	No. 18 S. G. (.049")	1.152"	.700 lbs.
$1\frac{1}{2}$ "	No. 18 S. G. (.049")	1.402"	.850 lbs.
2"	No. 16 B. & S. (.050")	1.900"	1.220 lbs.

## RECTANGULAR \*AMBRAC (20% NICKEL) TUBES

In 12-Foot Lengths

Outside Dimensions	Wall Thickness	Approx. Weight Per Foot
1" x $\frac{3}{4}$ "	No. 18 B. & S. (.040")	.640 lbs.
3" x $1\frac{1}{2}$ "	No. 12 B. & S. (.080")	2.950 lbs.

\* Trade mark Reg. U. S. Patent Office.



# ANACONDA BRONZE •

NICKEL  
SILVER

## SQUARE \*AMBRAC (20% NICKEL) TUBES

In 12-Foot Lengths

Outside Dimensions	Wall Thickness B. & S. and Stub's Ga.	Approx. Weight Per Foot
1/2" x 1/2"	No. 20 B. & S. (.032")	.221 lbs.
3/4" x 3/4"	No. 18 S. G. (.049")	.503 lbs.
1" x 1"	No. 19 S. G. (.042")	.600 lbs.
1 1/4" x 1 1/4"	No. 19 S. G. (.042")	.725 lbs.

## \*AMBRAC (20% NICKEL) PIPE

In 12-Foot Lengths

### STANDARD PIPE SIZES

Size I. P. S.	Wall Thickness	Outside Diameter	Inside Diameter	Approx. Weight Per Foot
1/2"	.107"	.840"	.625"	.938 lbs.
3/4"	.114"	1.050"	.822"	1.270 lbs.
1"	.126"	1.315"	1.062"	1.790 lbs.
1 1/4"	.146"	1.660"	1.368"	2.630 lbs.

\*Trade Mark Reg. U. S. Patent Office.

## SPRING TEMPER 18% NICKEL SILVER WIRE

In Coils About 40 Pounds

Diameter B. & S. Gauge	Approx. Weight Per 100 Feet	Diameter B. & S. Gauge	Approx. Weight Per 100 Feet
No. 24 (.020")	.121 lbs.	No. 14 (.064")	1.220 lbs.
No. 20 (.032")	.304 lbs.	No. 8 (.128")	4.903 lbs.
No. 18 (.040")	.482 lbs.		

## HALF HARD 18% NICKEL SILVER WIRE

In Coils About 40 Pounds

Diameter B. & S. Gauge	Approx. Weight Per 100 Feet	Diameter B. & S. Gauge	Approx. Weight Per 100 Feet
No. 18 (.040")	.482 lbs.	No. 12 (.081")	1.939 lbs.
No. 16 (.050")	.767 lbs.	No. 11 (.091")	2.456 lbs.
No. 15 (.057")	.967 lbs.	No. 10 (.102")	3.084 lbs.
No. 14 (.064")	1.220 lbs.	No. 9 (.114")	3.889 lbs.
No. 13 (.072")	1.573 lbs.	No. 8 (.128")	4.903 lbs.

## NICKEL SILVER ACCESSORIES

Machine Screws—Wood Screws

Escutcheon Pins

Used with Extruded Nickel Silver

Store Fronts and Metal Doors

Write us for Booklet B-20, "Anaconda Nickel Silver."

BRASS

# ● ANACONDA BRONZE



C O M M E R C I A L

## HALF HARD COMMERCIAL BRONZE SHEETS

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 20 (.032")	12"x	96"	11.73 lbs.	No. 12 (.081")	12"x	96"	29.62 lbs.
No. 20 (.032")	24"x	96"	23.46 lbs.	No. 12 (.081")	14"x	96"	35.56 lbs.
No. 20 (.032")	30"x	96"	29.32 lbs.	No. 12 (.081")	24"x	96"	59.24 lbs.
No. 18 (.040")	8"x	96"	9.85 lbs.	No. 11 (.091")	8"x	96"	22.18 lbs.
No. 18 (.040")	10"x	96"	12.22 lbs.	No. 11 (.091")	10"x	96"	27.70 lbs.
No. 18 (.040")	12"x	96"	14.77 lbs.	No. 11 (.091")	12"x	96"	33.28 lbs.
No. 18 (.040")	24"x	96"	29.54 lbs.	No. 11 (.091")	14"x	96"	38.81 lbs.
No. 18 (.040")	30"x	96"	36.94 lbs.	No. 11 (.091")	18"x	96"	49.88 lbs.
No. 16 (.050")	6"x	96"	9.30 lbs.	No. 11 (.091")	20"x	96"	55.40 lbs.
No. 16 (.050")	8"x	96"	12.20 lbs.	No. 11 (.091")	24"x	96"	66.56 lbs.
No. 16 (.050")	10"x	96"	15.50 lbs.	No. 11 (.091")	30"x	96"	83.10 lbs.
No. 16 (.050")	12"x	96"	18.60 lbs.	No. 10 (.102")	6"x	96"	18.68 lbs.
No. 16 (.050")	14"x	96"	21.50 lbs.	No. 10 (.102")	24"x	96"	74.72 lbs.
No. 16 (.050")	16"x	96"	24.40 lbs.	1/8" (.125")	6"x	96"	22.92 lbs.
No. 16 (.050")	18"x	96"	27.90 lbs.	1/8" (.125")	8"x	96"	30.56 lbs.
No. 16 (.050")	20"x	96"	31.00 lbs.	1/8" (.125")	10"x	96"	38.16 lbs.
No. 16 (.050")	24"x	96"	37.20 lbs.	1/8" (.125")	12"x	96"	45.84 lbs.
No. 14 (.064")	6"x	96"	11.75 lbs.	1/8" (.125")	14"x	96"	53.48 lbs.
No. 14 (.064")	8"x	96"	15.46 lbs.	1/8" (.125")	18"x	96"	68.76 lbs.
No. 14 (.064")	10"x	96"	19.56 lbs.	1/8" (.125")	20"x	96"	76.32 lbs.
No. 14 (.064")	12"x	96"	23.50 lbs.	1/8" (.125")	24"x	96"	91.68 lbs.
No. 14 (.064")	14"x	96"	27.41 lbs.	1/8" (.125")	30"x	96"	114.48 lbs.
No. 14 (.064")	18"x	96"	35.25 lbs.	3/16" (.187")	8"x	96"	45.82 lbs.
No. 14 (.064")	20"x	96"	39.12 lbs.	3/16" (.187")	12"x	96"	68.72 lbs.
No. 14 (.064")	24"x	96"	47.00 lbs.	3/16" (.187")	24"x	96"	137.44 lbs.
No. 14 (.064")	30"x	96"	58.76 lbs.	1/4" (.250")	12"x	96"	91.68 lbs.
No. 12 (.081")	6"x	96"	14.81 lbs.	1/4" (.250")	24"x	96"	183.36 lbs.
No. 12 (.081")	10"x	96"	23.68 lbs.				

Widths 6" to 18" inclusive are carried in lengths 7 to 8 feet.

For weight per square foot see pages 221 through 224.





# ANACONDA BRONZE •

COMMERCIAL

## SOFT COMMERCIAL BRONZE IN ROLLS

About 50 to 75 Pounds Each

Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Ft.	Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Ft.
No. 28 (.012")	14"	.673 lbs.	No. 20 (.032")	10"	1.222 lbs.
No. 26 (.016")	14"	.850 lbs.	No. 20 (.032")	12"	1.466 lbs.
No. 25 (.018")	14"	.957 lbs.	No. 20 (.032")	14"	1.710 lbs.
No. 24 (.020")	6"	.461 lbs.	No. 18 (.040")	6"	.924 lbs.
No. 24 (.020")	10"	.768 lbs.	No. 18 (.040")	10"	1.540 lbs.
No. 24 (.020")	12"	.921 lbs.	No. 18 (.040")	12"	1.847 lbs.
No. 24 (.020")	14"	1.074 lbs.	No. 18 (.040")	14"	2.154 lbs.
No. 23 (.023")	12"	1.160 lbs.	No. 16 (.050")	6"	1.164 lbs.
No. 22 (.025")	6"	.582 lbs.	No. 16 (.050")	12"	2.34 lbs.
No. 22 (.025")	10"	.967 lbs.	No. 16 (.050")	14"	2.72 lbs.
No. 22 (.025")	12"	1.163 lbs.	No. 16 (.050")	16"	3.103 lbs.
No. 22 (.025")	14"	1.357 lbs.	No. 14 (.064")	6"	1.479 lbs.
No. 20 (.032")	6"	.733 lbs.			

## ROUND COMMERCIAL BRONZE RODS

In Random 12-Foot Lengths

### Free Turning Quality

Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot
3/16"	.105 lbs.	7/16"	.575 lbs.	3/4"	1.700 lbs.
1/4"	.188 lbs.	1/2"	.754 lbs.	7/8"	2.300 lbs.
5/16"	.294 lbs.	9/16"	.958 lbs.	1"	2.980 lbs.
3/8"	.425 lbs.	5/8"	1.180 lbs.	1 1/4"	4.690 lbs.

## SQUARE COMMERCIAL BRONZE RODS

In Random 12-Foot Lengths

### Free Turning Quality

Diameter Across Flats	Approx. Wt. Per Foot	Diameter Across Flats	Approx. Wt. Per Foot	Diameter Across Flats	Approx. Wt. Per Foot
3/16" x 3/16"	.136 lbs.	3/8" x 3/8"	.527 lbs.	3/4" x 3/4"	2.190 lbs.
1/4" x 1/4"	.230 lbs.	1/2" x 1/2"	.968 lbs.	1" x 1"	3.840 lbs.
5/16" x 5/16"	.372 lbs.	5/8" x 5/8"	1.490 lbs.		

## RECTANGULAR COMMERCIAL BRONZE RODS

In Random 12-Foot Lengths

Dimensions	Approx. Wt. Per Foot	Dimensions	Approx. Wt. Per Foot	Dimensions	Approx. Wt. Per Foot
$\frac{3}{8}$ " x $\frac{1}{8}$ "	.19 lbs.	$\frac{3}{4}$ " x $\frac{3}{16}$ "	.56 lbs.	$1\frac{1}{4}$ " x $\frac{1}{2}$ "	2.50 lbs.
$\frac{3}{8}$ " x $\frac{3}{16}$ "	.29 lbs.	$\frac{3}{4}$ " x $\frac{1}{4}$ "	.75 lbs.	$1\frac{1}{4}$ " x $\frac{5}{8}$ "	3.12 lbs.
$\frac{3}{8}$ " x $\frac{1}{4}$ "	.37 lbs.	$\frac{3}{4}$ " x $\frac{5}{16}$ "	.95 lbs.	$1\frac{1}{2}$ " x $\frac{1}{8}$ "	.75 lbs.
$\frac{1}{2}$ " x $\frac{1}{8}$ "	.25 lbs.	$\frac{3}{4}$ " x $\frac{3}{8}$ "	1.12 lbs.	$1\frac{1}{2}$ " x $\frac{3}{16}$ "	1.12 lbs.
$\frac{1}{2}$ " x $\frac{3}{16}$ "	.37 lbs.	$\frac{3}{4}$ " x $\frac{1}{2}$ "	1.50 lbs.	$1\frac{1}{2}$ " x $\frac{1}{4}$ "	1.50 lbs.
$\frac{1}{2}$ " x $\frac{1}{4}$ "	.50 lbs.	1" x $\frac{1}{8}$ "	.50 lbs.	$1\frac{1}{2}$ " x $\frac{3}{8}$ "	2.25 lbs.
$\frac{1}{2}$ " x $\frac{5}{16}$ "	.63 lbs.	1" x $\frac{3}{16}$ "	.75 lbs.	$1\frac{1}{2}$ " x $\frac{1}{2}$ "	3.00 lbs.
$\frac{1}{2}$ " x $\frac{3}{8}$ "	.75 lbs.	1" x $\frac{1}{4}$ "	1.00 lbs.	$1\frac{1}{2}$ " x $\frac{3}{4}$ "	4.50 lbs.
$\frac{5}{8}$ " x $\frac{1}{8}$ "	.31 lbs.	1" x $\frac{5}{16}$ "	1.25 lbs.	2" x $\frac{1}{8}$ "	1.00 lbs.
$\frac{5}{8}$ " x $\frac{3}{16}$ "	.45 lbs.	1" x $\frac{3}{8}$ "	1.50 lbs.	2" x $\frac{3}{16}$ "	1.50 lbs.
$\frac{5}{8}$ " x $\frac{1}{4}$ "	.62 lbs.	1" x $\frac{1}{2}$ "	2.00 lbs.	2" x $\frac{1}{4}$ "	2.00 lbs.
$\frac{5}{8}$ " x $\frac{5}{16}$ "	.79 lbs.	$1\frac{1}{4}$ " x $\frac{1}{8}$ "	.62 lbs.	2" x $\frac{3}{8}$ "	3.00 lbs.
$\frac{5}{8}$ " x $\frac{3}{8}$ "	.94 lbs.	$1\frac{1}{4}$ " x $\frac{3}{16}$ "	.94 lbs.	2" x $\frac{1}{2}$ "	4.00 lbs.
$\frac{5}{8}$ " x $\frac{1}{2}$ "	1.24 lbs.	$1\frac{1}{4}$ " x $\frac{1}{4}$ "	1.25 lbs.		
$\frac{3}{4}$ " x $\frac{1}{8}$ "	.37 lbs.	$1\frac{1}{4}$ " x $\frac{3}{8}$ "	1.87 lbs.		

COMMERCIAL

## HARD DRAWN COMMERCIAL BRONZE ANGLES

In Random 12-Foot Lengths

Outside Measurements

Size of Legs	Thickness B. & S. Gauge	Approx. Wt. Per Foot	Size of Legs	Thickness B. & S. Gauge	Approx. Wt. Per Foot
$\frac{1}{2}$ " x $\frac{1}{2}$ " - No. 12 (.081")		.29 lbs.	$1\frac{1}{4}$ " x $\frac{1}{4}$ " - No. 8 (.128")		1.15 lbs.
$\frac{5}{8}$ " x $\frac{5}{8}$ " - No. 11 (.091")		.40 lbs.	$1\frac{1}{2}$ " x $\frac{1}{2}$ " - No. 8 (.128")		1.38 lbs.
$\frac{3}{4}$ " x $\frac{3}{4}$ " - No. 10 (.102")		.54 lbs.	2" x 2" - No. 8 (.128")		1.82 lbs.
1" x 1" - No. 8 (.128")		.88 lbs.			

## HARD DRAWN COMMERCIAL BRONZE CHANNELS

In Random 12-Foot Lengths

Outside Measurements

Leg	Size of Base	Thickness B. & S. Gauge	Approx. Wt. Per Foot	Leg	Size of Base	Thickness B. & S. Gauge	Approx. Wt. Per Foot
$\frac{3}{8}$ "	$\frac{1}{2}$ " x $\frac{3}{8}$ "	No. 12 (.081")	.35 lbs.	$\frac{1}{2}$ "	1" x $\frac{1}{2}$ "	No. 12 (.081")	.56 lbs.
$\frac{3}{8}$ "	$\frac{5}{8}$ " x $\frac{3}{8}$ "	No. 12 (.081")	.38 lbs.	$\frac{1}{2}$ "	$1\frac{1}{4}$ " x $\frac{1}{2}$ "	No. 12 (.081")	.69 lbs.
$\frac{3}{8}$ "	$\frac{3}{4}$ " x $\frac{3}{8}$ "	No. 14 (.064")	.33 lbs.	$\frac{1}{2}$ "	$1\frac{1}{2}$ " x $\frac{1}{2}$ "	No. 12 (.081")	.72 lbs.
$\frac{3}{8}$ "	$\frac{3}{4}$ " x $\frac{3}{8}$ "	No. 10 (.102")	.50 lbs.				

FOR DETAILED DIMENSIONAL DRAWINGS OF ALL NON-FERROUS SHAPES CARRIED IN STOCK WRITE FOR BOOKLET "FUNNY SHAPES"

**BRONZE (EXTRUDED) DOOR SADDLES**

**Fluted Top**

In 16-Foot Lengths or Cut to Specific Lengths

Size	Die Numbers	Approx. Weight Per Foot	Size	Die Numbers	Approx. Weight Per Foot
4"	23494	2.28 lbs.	6"	9266	3.46 lbs.
5"	23495	3.03 lbs.			

**ROUND COMMERCIAL BRONZE TUBES**

In Random 12-Foot Lengths

Out. Diam.	Wall Thick. B. & S. Gauge	Inside Diam.	Approx. Wt. Per Foot	Out. Diam.	Wall Thick. B. & S. Gauge	Inside Diam.	Approx. Wt. Per Foot
3/8"	No. 16(.050")	.275"	.198 lbs.	1 1/2"	No. 14(.064")	-1.372"	-1.090 lbs.
1/2"	No. 16(.050")	.400"	.276 lbs.	1 3/4"	No. 14(.064")	-1.622"	-1.260 lbs.
5/8"	No. 16(.050")	.525"	.352 lbs.	2"	No. 14(.064")	-1.872"	-1.450 lbs.
3/4"	No. 16(.050")	.650"	.430 lbs.	2 1/4"	No. 14(.064")	-2.122"	-1.650 lbs.
1"	No. 16(.050")	.900"	.582 lbs.	2 1/2"	No. 14(.064")	-2.372"	-1.830 lbs.
1 1/4"	No. 14(.064")	-1.122"	.910 lbs.	3"	No. 14(.064")	-2.872"	-2.200 lbs.

**SQUARE COMMERCIAL BRONZE TUBES**

In Random 12-Foot Lengths

Outside Dimensions	Wall Thick. B. & S. Gauge	Approx. Weight Per Foot	Outside Dimensions	Wall Thick. B. & S. Gauge	Approx. Weight Per Foot
3/8" x 3/8"	No. 14 (.064")	.30 lbs.	1 1/4" x 1 1/4"	No. 14 (.064")	-1.14 lbs.
1/2" x 1/2"	No. 14 (.064")	.42 lbs.	1 1/2" x 1 1/2"	No. 14 (.064")	-1.37 lbs.
5/8" x 5/8"	No. 14 (.064")	.54 lbs.	2" x 2"	No. 14 (.064")	-1.86 lbs.
3/4" x 3/4"	No. 14 (.064")	.66 lbs.	2 1/2" x 2 1/2"	No. 14 (.064")	-2.50 lbs.
1" x 1"	No. 14 (.064")	.89 lbs.	3" x 3"	No. 14 (.064")	-2.82 lbs.

**RECTANGULAR COMMERCIAL BRONZE TUBES**

In Random 12-Foot Lengths

Outside Dimensions	Wall Thick. B. & S. Gauge	Approx. Weight Per Foot	Outside Dimensions	Wall Thick. B. & S. Gauge	Approx. Weight Per Foot
3/4" x 3/8"	No. 14 (.064")	.48 lbs.	1 1/4" x 1 1/2"	No. 14 (.064")	.78 lbs.
3/4" x 1/2"	No. 14 (.064")	.55 lbs.	1 1/4" x 5/8"	No. 14 (.064")	.84 lbs.
1" x 3/8"	No. 14 (.064")	.61 lbs.	1 1/2" x 3/4"	No. 14 (.064")	-1.20 lbs.
1" x 1/2"	No. 14 (.064")	.67 lbs.	2" x 1"	No. 14 (.064")	-1.40 lbs.
1 1/4" x 3/8"	No. 14 (.064")	.71 lbs.	3" x 1 1/2"	No. 14 (.064")	-2.10 lbs.



## QUARTER HARD ACID DIPPED BRONZE SHEETS

Patent Levelled—Resquared For Trim

Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness B. & S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 24 (.020")	36"	96"	21.89 lbs.	No. 20 (.032")	24"	96"	23.20 lbs.
No. 23 (.022")	12"x 96"		8.20 lbs.	No. 20 (.032")	24"x120"		29.00 lbs.
No. 23 (.022")	14"x 96"		9.63 lbs.	No. 20 (.032")	26"x 96"		25.13 lbs.
No. 23 (.022")	16"x 96"		10.93 lbs.	No. 20 (.032")	30"x 96"		29.00 lbs.
No. 23 (.022")	18"x 96"		12.30 lbs.	No. 20 (.032")	34"x 96"		32.85 lbs.
No. 23 (.022")	20"x 96"		13.67 lbs.	No. 20 (.032")	36"x 96"		34.80 lbs.
No. 23 (.022")	24"x 96"		16.40 lbs.	No. 20 (.032")	36"x120"		43.50 lbs.
No. 23 (.022")	24"x120"		20.50 lbs.	No. 16 (.050")	16"x 96"		24.52 lbs.
No. 23 (.022")	30"x 96"		20.50 lbs.	No. 16 (.050")	16"x120"		30.67 lbs.
No. 20 (.032")	12"x 96"		11.60 lbs.	No. 16 (.050")	20"x 96"		30.67 lbs.
No. 20 (.032")	14"x 96"		13.52 lbs.	No. 16 (.050")	20"x120"		38.32 lbs.
No. 20 (.032")	14"x120"		16.91 lbs.	No. 16 (.050")	24"x 96"		36.80 lbs.
No. 20 (.032")	16"x 96"		15.46 lbs.	No. 16 (.050")	24"x120"		46.00 lbs.
No. 20 (.032")	16"x120"		19.33 lbs.	No. 16 (.050")	30"x 96"		46.00 lbs.
No. 20 (.032")	18"x 96"		17.40 lbs.	No. 16 (.050")	30"x120"		57.50 lbs.
No. 20 (.032")	20"x 96"		19.33 lbs.	No. 16 (.050")	36"x 96"		55.20 lbs.
No. 20 (.032")	20"x120"		24.16 lbs.				

## SOFT ACID DIPPED BRONZE IN ROLLS

About 50 to 75 Pounds Each

For Trim

Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Ft.	Thickness B. & S. Gauge	Width	Appr. Wt. Per Linear Ft.
No. 28 (.012")	14"	.667 lbs.	No. 23 (.022")	12"	1.025 lbs.
No. 27 (.014")	10"	.537 lbs.	No. 23 (.022")	14"	1.196 lbs.
No. 26 (.016")	10"	.602 lbs.	No. 23 (.022")	16"	1.367 lbs.
No. 26 (.016")	12"	.722 lbs.	No. 22 (.025")	12"	1.152 lbs.
No. 26 (.016")	14"	.842 lbs.	No. 22 (.025")	14"	1.344 lbs.
No. 24 (.020")	12"	.912 lbs.	No. 20 (.032")	12"	1.452 lbs.
No. 23 (.022")	8"	.684 lbs.	No. 20 (.032")	14"	1.694 lbs.
No. 23 (.022")	10"	.854 lbs.			

For weight per square foot see pages 221 through 224.

## ROUND EXTRUDED ARCHITECTURAL BRONZE ROD

In Random 12-Foot Lengths			
Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot
3/8"	.407 lbs.	3/4"	1.62 lbs.
1/2"	.723 lbs.	1"	2.89 lbs.
5/8"	1.130 lbs.	1 1/4"	4.50 lbs.

## SQUARE ARCHITECTURAL BRONZE RODS

In Random 12-Foot Lengths					
Diameter Across Flats	Approx. Wt. Per Foot	Diameter Across Flats	Approx. Wt. Per Foot	Diameter Across Flats	Approx. Wt. Per Foot
3/16" x 3/16"	.129 lbs.	3/8" x 3/8"	.518 lbs.	3/4" x 3/4"	2.075 lbs.
1/4" x 1/4"	.230 lbs.	1/2" x 1/2"	.922 lbs.	1" x 1"	3.689 lbs.
5/16" x 5/16"	.360 lbs.	5/8" x 5/8"	1.441 lbs.		

## RECTANGULAR ARCHITECTURAL BRONZE RODS

In Random 12-Foot Lengths					
Dimensions	Approx. Weight Per Foot	Dimensions	Approx. Weight Per Foot	Dimensions	Approx. Weight Per Foot
3/8" x 1/4"	.342 lbs.	1" x 3/8"	1.382 lbs.	1 1/2" x 3/8"	2.080 lbs.
1/2" x 1/4"	.476 lbs.	1" x 1/2"	1.842 lbs.	1 1/2" x 1/2"	2.740 lbs.
3/4" x 1/8"	.346 lbs.	1 1/4" x 1/8"	.576 lbs.	2" x 1/8"	.921 lbs.
3/4" x 3/16"	.518 lbs.	1 1/4" x 3/16"	.870 lbs.	2" x 3/16"	1.382 lbs.
3/4" x 1/4"	.691 lbs.	1 1/4" x 1/4"	1.151 lbs.	2" x 1/4"	1.842 lbs.
3/4" x 3/8"	1.036 lbs.	1 1/4" x 3/8"	1.727 lbs.	2" x 3/8"	2.763 lbs.
3/4" x 1/2"	1.382 lbs.	1 1/4" x 1/2"	2.303 lbs.	2" x 1/2"	3.684 lbs.
1" x 1/8"	.461 lbs.	1 1/2" x 1/8"	.690 lbs.	2 1/2" x 1/8"	1.382 lbs.
1" x 3/16"	.689 lbs.	1 1/2" x 3/16"	1.040 lbs.	2 1/2" x 3/16"	1.728 lbs.
1" x 1/4"	.921 lbs.	1 1/2" x 1/4"	1.380 lbs.	2 1/2" x 1/4"	2.764 lbs.

## ARCHITECTURAL BRONZE ANGLES

In 12 to 15-Foot Lengths					
Size of Legs	Thickness	Appr. Wt. Per Foot	Size of Legs	Thickness	Appr. Wt. Per Foot
3/8" x 3/8"	3/32" (.093")	.22 lbs.	1/2" x 3/4"	1/8" (.125")	.52 lbs.
3/8" x 3/8"	1/8" (.125")	.30 lbs.	1/2" x 1"	1/8" (.125")	.65 lbs.
3/8" x 1/2"	3/32" (.093")	.26 lbs.	1/2" x 1 1/2"	1/8" (.125")	.84 lbs.
3/8" x 3/4"	3/32" (.093")	.35 lbs.	5/8" x 5/8"	3/32" (.093")	.36 lbs.
3/8" x 1"	1/8" (.125")	.58 lbs.	5/8" x 5/8"	1/8" (.125")	.52 lbs.
1/2" x 1/2"	3/32" (.093")	.31 lbs.	3/4" x 3/4"	3/32" (.093")	.48 lbs.
1/2" x 1/2"	1/8" (.125")	.42 lbs.	3/4" x 3/4"	1/8" (.125")	.64 lbs.

## ARCHITECTURAL BRONZE ANGLES (Cont.)

In 12 to 15-Foot Lengths.

Size of Legs	Thickness	Appr. Wt. Per Foot	Size of Legs	Thickness	Appr. Wt. Per Foot
$\frac{3}{4}$ " x 1"	$\frac{1}{8}$ " (.125")	.75 lbs.	$1\frac{1}{2}$ " x $1\frac{1}{2}$ "	$\frac{1}{8}$ " (.125")	1.35 lbs.
$\frac{3}{4}$ " x $1\frac{1}{4}$ "	$\frac{1}{8}$ " (.125")	.88 lbs.	$1\frac{1}{2}$ " x $1\frac{1}{2}$ "	$\frac{3}{16}$ " (.187")	1.92 lbs.
$\frac{3}{4}$ " x $1\frac{1}{2}$ "	$\frac{1}{2}$ " (.125")	.97 lbs.	$1\frac{1}{2}$ " x $1\frac{1}{2}$ "	$\frac{1}{4}$ " (.250")	2.52 lbs.
1" x 1"	$\frac{1}{8}$ " (.125")	.89 lbs.	2" x 2"	$\frac{1}{8}$ " (.125")	1.79 lbs.
1" x 1"	$\frac{3}{16}$ " (.187")	1.30 lbs.	2" x 2"	$\frac{3}{16}$ " (.187")	2.58 lbs.
1" x $1\frac{1}{4}$ "	$\frac{1}{8}$ " (.125")	1.00 lbs.	2" x 2"	$\frac{1}{4}$ " (.250")	3.37 lbs.
1" x $1\frac{1}{2}$ "	$\frac{1}{8}$ " (.125")	1.10 lbs.	$2\frac{1}{2}$ " x $2\frac{1}{2}$ "	$\frac{3}{16}$ " (.187")	3.41 lbs.
1" x 2"	$\frac{1}{8}$ " (.125")	1.33 lbs.	$2\frac{1}{2}$ " x $2\frac{1}{2}$ "	$\frac{1}{4}$ " (.250")	4.20 lbs.
$1\frac{1}{4}$ " x $1\frac{1}{4}$ "	$\frac{1}{8}$ " (.125")	1.09 lbs.	3" x 3"	$\frac{1}{4}$ " (.250")	5.25 lbs.
$1\frac{1}{4}$ " x $1\frac{1}{4}$ "	$\frac{1}{4}$ " (.250")	2.10 lbs.			

## ARCHITECTURAL BRONZE CHANNELS

In 12 to 15-Foot Lengths

Leg	Size of Base	Leg	Thickness	Approx. Weight Per Foot
$\frac{3}{8}$ "	$\frac{3}{8}$ " x $\frac{3}{8}$ "		$\frac{3}{32}$ " (.093")	.33 lbs.
$\frac{3}{8}$ "	$\frac{1}{2}$ " x $\frac{3}{8}$ "		$\frac{1}{8}$ " (.125")	.46 lbs.
$\frac{3}{8}$ "	$\frac{1}{2}$ " x $\frac{3}{8}$ "		$\frac{3}{32}$ " (.093")	.36 lbs.
$\frac{3}{8}$ "	$\frac{3}{4}$ " x $\frac{3}{8}$ "		$\frac{1}{8}$ " (.125")	.57 lbs.
$\frac{3}{8}$ "	1" x $\frac{3}{8}$ "		$\frac{1}{8}$ " (.125")	.69 lbs.
$\frac{1}{2}$ "	$\frac{1}{2}$ " x $\frac{1}{2}$ "		$\frac{3}{32}$ " (.093")	.45 lbs.
$\frac{1}{2}$ "	$\frac{3}{4}$ " x $\frac{1}{2}$ "		$\frac{3}{32}$ " (.093")	.52 lbs.
$\frac{1}{2}$ "	$\frac{3}{4}$ " x $\frac{1}{2}$ "		$\frac{1}{8}$ " (.125")	.68 lbs.
$\frac{1}{2}$ "	1" x $\frac{1}{2}$ "		$\frac{1}{8}$ " (.125")	.84 lbs.
$\frac{1}{2}$ "	$1\frac{1}{4}$ " x $\frac{1}{2}$ "		$\frac{1}{8}$ " (.125")	.93 lbs.
$\frac{1}{2}$ "	$1\frac{1}{2}$ " x $\frac{1}{2}$ "		$\frac{1}{8}$ " (.125")	1.02 lbs.
$\frac{3}{4}$ "	$\frac{3}{4}$ " x $\frac{3}{4}$ "		$\frac{3}{32}$ " (.093")	.68 lbs.
$\frac{3}{4}$ "	$\frac{3}{4}$ " x $\frac{3}{4}$ "		$\frac{1}{8}$ " (.125")	.90 lbs.
$\frac{3}{4}$ "	1" x $\frac{3}{4}$ "		$\frac{1}{8}$ " (.125")	1.04 lbs.
$\frac{3}{4}$ "	$1\frac{1}{4}$ " x $\frac{3}{4}$ "		$\frac{1}{8}$ " (.125")	1.15 lbs.
$\frac{3}{4}$ "	1.40" x $\frac{3}{4}$ "		$\frac{3}{32}$ " (.093")	.92 lbs.
$\frac{3}{4}$ "	$1\frac{1}{2}$ " x $\frac{3}{4}$ "		$\frac{1}{8}$ " (.125")	1.26 lbs.
$\frac{3}{4}$ "	1.59" x $\frac{3}{4}$ "		$\frac{3}{32}$ " (.093")	.98 lbs.
1"	1" x 1"		$\frac{1}{8}$ " (.125")	1.25 lbs.
1"	$1\frac{1}{4}$ " x 1"		$\frac{1}{8}$ " (.125")	1.35 lbs.
1"	$1\frac{1}{2}$ " x 1"		$\frac{1}{8}$ " (.125")	1.45 lbs.
1"	2" x 1"		$\frac{1}{8}$ " (.125")	1.75 lbs.
$1\frac{1}{2}$ "	$1\frac{1}{2}$ " x $1\frac{1}{2}$ "		$\frac{1}{8}$ " (.125")	1.80 lbs.



# ANACONDA BRONZE •

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## SPRING TEMPER PHOSPHOR BRONZE SHEETS

In 6 to 8-Foot Lengths

Thickness B. & S. Gauge	Width	Approx. Weight Per Linear Foot	Thickness B. & S. Gauge	Width	Approx. Weight Per Linear Foot
No. 18 (.040")	6"	.935 lbs.	No. 12 (.081")	6"	1.810 lbs.
No. 16 (.050")	6"	1.150 lbs.	No. 10 (.102")	6"	2.300 lbs.
No. 14 (.064")	6"	1.450 lbs.	1/8" (.125")	6"	2.900 lbs.

## SPRING TEMPER PHOSPHOR BRONZE IN ROLLS

About 50 Pounds Each

Thickness B. & S. Gauge	Width	Approx. Weight Per Linear Foot	Thickness B. & S. Gauge	Width	Approx. Weight Per Linear Foot
No. 36 (.005")	6"	.120 lbs.	No. 25 (.018")	6"	.405 lbs.
No. 34 (.006")	6"	.150 lbs.	No. 24 (.020")	6"	.455 lbs.
No. 32 (.008")	6"	.180 lbs.	No. 23 (.022")	6"	.500 lbs.
No. 30 (.010")	6"	.226 lbs.	No. 22 (.025")	6"	.575 lbs.
No. 28 (.012")	6"	.286 lbs.	No. 21 (.028")	6"	.645 lbs.
No. 27 (.014")	6"	.322 lbs.	No. 20 (.032")	6"	.725 lbs.
No. 26 (.016")	6"	.361 lbs.			

## ROUND PHOSPHOR BRONZE RODS

In Random 12-Foot Lengths

Free Turning Quality

Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot
5/32"	.073 lbs.	1/2"	.754 lbs.	1 1/8"	3.820 lbs.
3/16"	.106 lbs.	9/16"	.906 lbs.	1 1/4"	4.710 lbs.
1/4"	.188 lbs.	5/8"	1.180 lbs.	1 3/8"	5.700 lbs.
5/16"	.295 lbs.	3/4"	1.690 lbs.	1 1/2"	6.780 lbs.
3/8"	.424 lbs.	7/8"	2.310 lbs.	1 3/4"	9.230 lbs.
7/16"	.577 lbs.	1"	3.020 lbs.	2"	12.060 lbs.

## PHOSPHOR BRONZE WELDING RODS AND MANGANESE BRONZE WELDING RODS

See Welding and Brazing Section—Page 199

## PHOSPHOR BRONZE BUSHINGS

### ROUGH CAST AND MACHINED BARS

Available for Immediate Shipment

## SPRING TEMPER PHOSPHOR BRONZE WIRE

In Coils About 40 to 50 Pounds

Diameter B. & S. Gauge	Approx. Wt. Per Foot	Diameter B. & S. Gauge	Approx. Wt. Per Foot	Diameter B. & S. Gauge	Approx. Wt. Per Foot
No. 24 (.020")	.0012 lbs.	No. 16 (.050")	.0078 lbs.	No. 9 (.114")	.0396 lbs.
No. 22 (.025")	.0019 lbs.	No. 15 (.057")	.0098 lbs.	No. 8 (.128")	.0499 lbs.
No. 21 (.028")	.0024 lbs.	No. 14 (.064")	.0124 lbs.	No. 7 (.144")	.0630 lbs.
No. 20 (.032")	.0030 lbs.	No. 13 (.072")	.0156 lbs.	No. 6 (.162")	.0794 lbs.
No. 19 (.036")	.0039 lbs.	No. 12 (.081")	.0197 lbs.	No. 5 (.182")	.1002 lbs.
No. 18 (.040")	.0049 lbs.	No. 11 (.091")	.0249 lbs.		
No. 17 (.045")	.0062 lbs.	No. 10 (.102")	.0314 lbs.		

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# ● ANACONDA BRONZE



P H O S P H O R

## PHOSPHOR BRONZE WIRE ROPE

With Hemp Centres  
Prompt Shipment

### TILLER ROPE

6 Strands—42 Wires Each  
In Diameters of

$\frac{1}{8}$ "  $\frac{3}{16}$ "  $\frac{1}{4}$ "  $\frac{5}{16}$ "  $\frac{3}{8}$ "  $\frac{7}{16}$ "  $\frac{1}{2}$ "  $\frac{5}{8}$ "  $\frac{3}{4}$ "

\*These sizes are constructed same as Hoisting Rope (6x19) as in Tiller-Lay the wires would be too fine to give durability.

## RIGGING OR TRANSMISSION ROPE

6 Strands—7 Wires Each  
In Diameters of

$\frac{1}{4}$ "  $\frac{5}{16}$ "  $\frac{3}{8}$ "  $\frac{7}{16}$ "  $\frac{1}{2}$ "  $\frac{5}{8}$ "  $\frac{3}{4}$ "

### SASH CORD

Cotton Center  
6 Strands—7 Wires Each  
In Diameters of

$\frac{1}{16}$ "  $\frac{3}{32}$ "  $\frac{1}{8}$ "  $\frac{3}{16}$ "  $\frac{1}{4}$ "

### HOISTING ROPE

6 Strands—19 Wires Each  
In Diameters of

$\frac{1}{8}$ "  $\frac{3}{16}$ "  $\frac{1}{4}$ "  $\frac{5}{16}$ "  $\frac{3}{8}$ "  $\frac{7}{16}$ "  $\frac{1}{2}$ "  $\frac{5}{8}$ "  $\frac{3}{4}$ "

## PHOSPHOR BRONZE SPRING (LOCK) WASHERS

### Kantlink Type

For Screws and Bolts  
Screw Sizes

Nos.	2	4	6	8	10	12
	Bolt Sizes					

$\frac{1}{4}$ "  $\frac{5}{16}$ "  $\frac{3}{8}$ "  $\frac{1}{2}$ "  $\frac{5}{8}$ "  $\frac{3}{4}$ "

## BRONZE SASH CHAIN

Prompt Shipment

### RED METAL

In Sizes of

New Nos.	8	30	35	40	45	50	60	65
Old Nos.	00	0	2	1	A30	A	AA	XXXX

### PHOSPHOR BRONZE

In Sizes of

New Nos.	30	35	40	45	50	65
Old Nos.	0	2	1	A30	A	XXXX



# ANACONDA BRONZE •

TOBIN

## ROUND \*TOBIN BRONZE RODS

### Specially Straightened For Shafting

In 12-Foot and 18-Foot Lengths

Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot
1"	2.865 lbs.	1 1/2"	6.447 lbs.	2 1/4"	14.500 lbs.	3 1/2"	35.100 lbs.
1 1/8"	3.626 lbs.	1 5/8"	7.566 lbs.	2 1/2"	17.880 lbs.	*4"	45.780 lbs.
1 1/4"	4.477 lbs.	1 3/4"	8.774 lbs.	2 3/4"	21.640 lbs.	*4 1/2"	58.020 lbs.
1 3/8"	5.417 lbs.	2"	11.460 lbs.	3"	25.790 lbs.	*5"	71.630 lbs.

\*Note 4 1/2" Carried In 8-Foot Lengths Only.

5" Carried In 10-Foot Lengths Only.

## HEXAGON \*TOBIN BRONZE RODS

In Random 12-Foot Lengths

Diameter Across Flats	Approx. Wt. Per Foot	Diameter Across Flats	Approx. Wt. Per Foot	Diameter Across Flats	Approx. Wt. Per Foot
3/8"	.444 lbs.	3/4"	1.775 lbs.	1 3/8"	5.965 lbs.
7/16"	.604 lbs.	7/8"	2.416 lbs.	1 7/16"	6.520 lbs.
1/2"	.789 lbs.	1"	3.155 lbs.	1 1/2"	7.100 lbs.
9/16"	.998 lbs.	1 1/16"	3.562 lbs.	1 3/4"	9.647 lbs.
5/8"	1.232 lbs.	1 1/8"	3.993 lbs.	2"	12.620 lbs.
1 1/16"	1.491 lbs.	1 1/4"	4.930 lbs.		

## ROUND \*TOBIN BRONZE RODS

### Ordinary Finish

In Random 12-Foot Lengths

Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot
1/8"	.045 lbs.	1 1/16"	1.353 lbs.	1 5/16"	4.936 lbs.	2 1/2"	17.910 lbs.
3/16"	.100 lbs.	3/4"	1.610 lbs.	1 3/8"	5.417 lbs.	2 3/4"	21.670 lbs.
7/32"	.140 lbs.	13/16"	1.890 lbs.	1 7/16"	5.921 lbs.	3"	25.790 lbs.
1/4"	.178 lbs.	7/8"	2.194 lbs.	1 1/2"	6.447 lbs.	3 1/4"	30.260 lbs.
5/16"	.279 lbs.	1 5/16"	2.518 lbs.	1 5/8"	7.566 lbs.	3 1/2"	35.100 lbs.
3/8"	.403 lbs.	1"	2.865 lbs.	1 3/4"	8.774 lbs.	3 3/4"	40.290 lbs.
7/16"	.548 lbs.	1 1/16"	3.234 lbs.	1 7/8"	10.070 lbs.	4"	45.840 lbs.
1/2"	.715 lbs.	1 1/8"	3.626 lbs.	2"	11.460 lbs.		
9/16"	.905 lbs.	1 3/16"	4.040 lbs.	2 1/8"	12.940 lbs.		
5/8"	1.118 lbs.	1 1/4"	4.477 lbs.	2 1/4"	14.500 lbs.		

## ROUND NAVAL BRONZE ROD

Random 12-Foot Lengths.

Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot
*5/8"	1.118 lbs.	*7/8"	2.190 lbs.
*3/4"	1.610 lbs.	*1"	2.860 lbs.

\*Carried In Our Philadelphia Warehouse Only.

## \*TOBIN BRONZE WELDING RODS

Consult Welding and Brazing Section—Page 199

\*Trade Mark Reg. U. S. Patent Office.

Write for Booklet B-16, "Tobin Bronze—General Properties and Applications."

BRASS



## \*EVERDUR

### Description

#### EVERDUR 1010

Everdur 1010 is the basic Everdur Alloy and is supplied in all commercial forms. As hot rolled and annealed plates, it is extensively used for welded tanks and pressure vessels. In rod form, Everdur 1010 is widely employed for hot forging, hot upsetting and machining.

#### EVERDUR 1015

This modification of the basic Everdur Alloy was developed for operations requiring severe cold working. Available in rod form, Everdur 1015 is extensively used for cold headed and roll threaded bolts.

#### EVERDUR 1012

Everdur 1012 is furnished in rod form and is similar to the basic alloy with the exception that a small amount of lead has been added to improve its machining characteristics. This free cutting alloy was developed for the production of screw machine parts requiring high strength, toughness, and corrosion resistance. It is furnished in standard mill lengths and in the conventional shapes for screw machine use.

### ROUND COLD DRAWN EVERDUR (1010) RODS

In Random 12-Foot Lengths

Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot
3/16"	.101 lbs.	1/2"	.721 lbs.	1"	2.884 lbs.
1/4"	.180 lbs.	9/16"	.919 lbs.	1 1/8"	3.660 lbs.
5/16"	.281 lbs.	5/8"	1.127 lbs.	1 1/4"	4.506 lbs.
3/8"	.405 lbs.	3/4"	1.622 lbs.	*1 1/2"	6.531 lbs.
7/16"	.551 lbs.	7/8"	2.208 lbs.		

Other sizes from 1/8" to 3" inclusive, can be shipped from mill in Commercial Finish or Piston Finish for Boat Shafting.

### HEXAGON COLD DRAWN EVERDUR (1010) RODS

Diameter	Approx. Wt. Per Foot
*7/8"	2.444 lbs.
*1 1/4"	4.992 lbs.

\*Carried In Our Philadelphia Warehouse Only.

### EVERDUR (1010) WELDING RODS

See Welding and Brazing Section—Page 199

\*Trade Mark Reg. U. S. Patent Office.



# ANACONDA BRONZE •

EVERDUR

## SEAMLESS EVERDUR (1010) PIPE

In 12-Foot Lengths

### Standard Pipe Sizes

Size I. P. S.	Wall Thickness	Outside Diameter	Inside Diameter	Approx. Wt. Per Foot
1/2"	.107"	.840"	.625"	.914 lbs.
3/4"	.114"	1.050"	.822"	1.240 lbs.
1"	.126"	1.315"	1.062"	1.750 lbs.
1 1/4"	.146"	1.660"	1.368"	2.570 lbs.
1 1/2"	.150"	1.900"	1.600"	3.050 lbs.
2"	.156"	2.375"	2.062"	4.030 lbs.

## EVERDUR PIPE FITTINGS

Prompt Shipment

### Standard Pipe Sizes

In Forms of

90° Elbows	Lock Nuts	Caps	Unions
45° Elbows	Reducers	Plugs	Return Bends
Street Ells	Bushings	Nipples	Gate Valves
Couplings	Crosses	Close Nipples	Globe Valves

## EVERDUR MACHINE BOLTS

Hexagon Head—Hexagon Nut

American Standard

In Lengths of

Diameter										
1/4" —20	3/4"	1"	1 1/4"	1 1/2"	2"					
5/16" —18	3/4"	1"	1 1/4"	1 1/2"	2"					
3/8" —16	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	
1/2" —13	—	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	4 1/2" 5" 6"
5/8" —11	—	—	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	
3/4" —10	—	—	—	—	2"	2 1/2"	3"			

## EVERDUR CARRIAGE BOLTS

Round Head—Square Neck

With Hexagon Nuts

American Standard

In Lengths of

Diameter							
1/4" —20	1 1/2"	2"	2 1/2"	3"			
3/8" —16	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	
1/2" —13	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	6"

## EVERDUR STUD BOLTS AND EVERDUR THREADED RODS

Made to order with little delay from available rods on hand

Diameters:  $\frac{1}{4}$ " to 1" Incl.

Hexagon Nuts and Washers can also be furnished for the above Studs and Rods.  
Larger diameters ( $1\frac{1}{8}$ " to 3") can also be furnished promptly.

## EVERDUR HEXAGON NUTS

For Bolts, Studs and Rods

American Standard—Regular

In Sizes of

$\frac{1}{4}$ " —20	$\frac{3}{8}$ " —16	$\frac{5}{8}$ " —11	$\frac{7}{8}$ " —9
$\frac{5}{16}$ " —18	$\frac{1}{2}$ " —13	$\frac{3}{4}$ " —10	1" —8

## EVERDUR CAP SCREWS

HEXAGON HEAD

American Standard

In Lengths of

Diameter	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	1"				
$\frac{1}{4}$ " —20								
$\frac{5}{16}$ " —18	—	—	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "		
$\frac{3}{8}$ " —16	—	—	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	$1\frac{3}{4}$ "	2"
$\frac{1}{2}$ " —13	—	—	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	$1\frac{3}{4}$ "	2"

## EVERDUR MACHINE SCREWS

American National Standard Coarse Threads

In One-Gross Boxes

ROUND HEAD AND FLAT HEAD

In Lengths of

Diameter	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	1"			
6 32										
8 32	—	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	1"			
**10 32	—	—	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	
10 24	—	—	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	
$\frac{1}{4}$ " —20	—	—	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	$1\frac{3}{4}$ " 2"
$\frac{5}{16}$ " —18	—	—	—	—	—	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	$1\frac{3}{4}$ " 2"

\*\*Fine Threads.





# ANACONDA BRONZE •

## EVERDUR HEXAGON MACHINE SCREW NUTS

American National Standard  
In One-Gross Boxes  
In Sizes of

6/32	8/32	**10/32	10/24	1/4"—20	5/16"—18
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\*\*Fine threads.

## EVERDUR WOOD SCREWS

American National Standard  
In One-Gross Boxes

### FLAT HEAD SIZES

In Lengths of

Diameter										
No. 4	1/2"	5/8"								
No. 5	—	5/8"	3/4"							
No. 6	—	5/8"	3/4"	7/8"	1"	1 1/4"				
No. 7	—	—	3/4"	—	1"	1 1/4"	1 1/2"			
No. 8	—	—	3/4"	7/8"	1"	1 1/4"	1 1/2"	—	2"	
No. 9	—	—	—	—	—	1 1/4"	1 1/2"	—		
No. 10	—	—	3/4"	—	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"
No. 12	—	—	—	—	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"
No. 14	—	—	—	—	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2" 3"
No. 16	—	—	—	—	—	—	1 1/2"	1 3/4"	2"	2 1/2" 3"
No. 18	—	—	—	—	—	—	—	—	2"	3"

Sizes not listed, also Round Head and Oval Head Everdur Wood Screws, can be secured promptly.

## EVERDUR HANGER SCREWS

With Hexagon Nuts  
Available for Prompt Shipment.  
In Lengths of

Diameter						
3/8"	—	3"	3 1/2"	4"	5"	6"
1/2"	—	—	—	4"	5"	6"
5/8"	—	—	—	—	5"	6"
3/4"	—	—	—	—	5"	6"

## EVERDUR LAG SCREWS

Square Head—Gimlet Point

In Lengths of

Diameter										
1/4"	1 1/2"	2"								
3/8"	—	2"	2 1/2"	3"	3 1/2"	4"	4 1/2"			
1/2"	—	2"	2 1/2"	3"	3 1/2"	4"	—	5"	6"	
5/8"	—	—	—	—	—	—	—	5"	6"	
3/4"	—	—	—	—	—	—	—	5"	6"	

# ● ANACONDA BRONZE



## EVERDUR WASHERS

### For Bolts and Rods

In Sizes of

Diameter	O. D.	I. D.	Thick	Diameter	O. D.	I. D.	Thick
1/4" —	5/8"	9/32"	.050"	5/8" —	1 5/8"	1 1/16"	.102"
5/16" —	1 3/16"	1 1/32"	.064"	3/4" —	2"	1 3/16"	.114"
3/8" —	1"	7/16"	.064"	7/8" —	2 1/4"	1 5/16"	.128"
1/2" —	1 3/8"	9/16"	.081"	1" —	2 1/2"	1 1/4"	.128"

## EVERDUR SPRING (LOCK) WASHERS

### For Bolts

In Sizes of

Diameter	Section	Diameter	Section
1/4"	— (3/32" x 1/16")	1/2"	— (11/64" x 1/8")
5/16"	— (1/8" x 1/16")	5/8"	— (13/64" x 5/32")
3/8"	— (1/8" x 3/32")	3/4"	— (1/4" x 1/8")

## EVERDUR WIRE NAILS

### Flat (Common) Head

Size	Length	Gauge	Appr. No. Per lb.	Size	Length	Gauge	Appr. No. Per lb.
2d	1"	No. 15 (.072")	690	8d	2 1/2"	No. 10 (.134")	83
3d	1 1/4"	No. 14 (.083")	411	10d	3"	No. 9 (.148")	56
4d	1 1/2"	No. 12 (.109")	195	16d	3 1/2"	No. 8 (.165")	38
6d	2"	No. 10 (.134")	101	20d	4"	No. 6 (.203")	23

## SOLID BRONZE BALLS

In Diameters of

1/8" 3/16" 1/4" 5/16" 3/8" 7/16" 1/2" 5/8" 3/4" 7/8" 1" 1 1/8" 1 1/4" 1 3/8" 1 1/2"

Bronze Tube Fitting shown on pages 136, 137.

Bronze Screen and Wire Cloth listed on page 146.

Write for booklets E-5, "Everdur Metal—Applications—Physical Properties—Constants—Corrosion Resistance Data" and E-6, "Everdur Bolts, Screws and Accessories."

BRASS

BRONZE



# COPPER

## SECTION



Includes Only

### COPPER

In All Commercial Forms



COPPER

NICK  
MONIE



# COPPER SECTION

## INDEX

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## CUTTING INFORMATION

Consistent with economical practice, we will cut stock sizes of Copper to your particular requirements within commercial limits and tolerances.

### Sawing

We are equipped to saw Copper Sheet up to 1" thick with a tolerance of 1/32" plus or minus. The tolerance on the square is 1/32" plus or minus in 3 feet or 1/16" in 6 feet.

### Shearing

We are equipped to shear Copper Sheets up to 144" in length and 3/16" in thickness with a tolerance of 1/32" plus or minus. Any length sheet over 144" can also be sheared with a 1/32" plus or minus tolerance, in thicknesses up to 1/8". On sheets over 144" however, the width of the sheet left after cutting must not exceed 18". We can shear 1/4" to 1/2" wide in 5' lengths; wider than 1/2" up to 144" long.

For precision work, sheets should be sheared where possible 1/8" or 1/4" larger than required and machined to size by the customer.

We can cut Copper Circles from 8" to 50" in diameter in thicknesses up to .064. Circles 3" to 8" in diameter to .032 thickness.

### Slitting

We are equipped to slit Copper in coils from 1/4" to 18" in width, in 1/64" increments with a tolerance of .003" plus or minus, in thicknesses up to No. 14 B&S Gauge. It can be wound on mandrels 4", 6" or 8" in diameter.

### Cutting and Threading

We are equipped to cut all sizes of Copper rod, tube and pipe. We can thread Copper rods from 3/8" to 1 1/4" in diameter and Copper pipe size tubing from 1/8" to 3".

## THE COPPER SECTION

This section contains COPPER only. The various Copper Alloys, such as the Brasses, the Bronzes, and the Nickel Silvers, are contained in the Brass and Bronze Sections as listed on the division sheet at the beginning of each of these sections.

For the complete Description, Composition and Mechanical and Physical Properties of Copper and all of the Copper Alloys, see pages 65 to 69.

### HOT ROLLED (SOFT) COPPER SHEETS

Sizes Up to 24 Oz. per Square Foot

Thickness In Ounces	Nearest B. & S. Gauge	Width	Length	Approx. Weight Per Sheet
10 (.013")	No. 27	30" x	60"	7.81 lbs.
12 (.016")	No. 26	30" x	60"	9.38 lbs.
14 (.019")	No. 25	30" x	60"	10.94 lbs.
14 (.019")	No. 25	30" x	96"	17.50 lbs.
14 (.019")	No. 25	36" x	96"	21.00 lbs.
*16 (.021")	No. 24	14" x	48"	4.17 lbs.
16 (.021")	No. 24	18" x	96"	12.00 lbs.
16 (.021")	No. 24	20" x	96"	13.28 lbs.
*16 (.021")	No. 24	22" x	96"	14.67 lbs.
16 (.021")	No. 24	24" x	96"	16.00 lbs.
*16 (.021")	No. 24	26" x	96"	17.33 lbs.
*16 (.021")	No. 24	28" x	96"	18.87 lbs.
16 (.021")	No. 24	30" x	60"	12.50 lbs.
16 (.021")	No. 24	30" x	96"	20.00 lbs.
*16 (.021")	No. 24	34" x	96"	22.67 lbs.
16 (.021")	No. 24	36" x	96"	24.00 lbs.
16 (.021")	No. 24	48" x	72"	24.00 lbs.
18 (.024")	No. 22	30" x	96"	22.50 lbs.
18 (.024")	No. 22	36" x	96"	27.00 lbs.
18 (.024")	No. 22	48" x	72"	27.00 lbs.
*20 (.027")	No. 21	24" x	96"	20.00 lbs.
20 (.027")	No. 21	30" x	60"	17.50 lbs.
20 (.027")	No. 21	30" x	96"	25.00 lbs.
20 (.027")	No. 21	36" x	96"	30.00 lbs.
20 (.027")	No. 21	48" x	72"	30.00 lbs.
24 (.032")	No. 20	30" x	60"	19.00 lbs.
24 (.032")	No. 20	30" x	96"	30.00 lbs.
24 (.032")	No. 20	36" x	96"	36.00 lbs.

\*Carried in our Boston Warehouse only.

For weight per square foot see pages 221 through 224.

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## HOT ROLLED (SOFT) COPPER SHEETS (Cont.)

### Heavy Sizes

1½ Lbs. to 12 Lbs. Per Square Foot

Thickness Per Square Foot	Nearest B. & S. Gauge	Width	Length	Approx. Weight Per Sheet
1½ lbs. (.032")	No. 20	30" x	60"	19 lbs.
1½ lbs. (.032")	No. 20	48" x	72"	36 lbs.
1½ lbs. (.032")	No. 20	48" x	96"	48 lbs.
1¾ lbs. (.037")	No. 19	48" x	72"	42 lbs.
*1¾ lbs. (.037")	No. 19	48" x	96"	56 lbs.
2 lbs. (.043")	No. 18	30" x	60"	25 lbs.
*2 lbs. (.043")	No. 18	30" x	96"	40 lbs.
2 lbs. (.043")	No. 18	36" x	96"	48 lbs.
2 lbs. (.043")	No. 18	48" x	72"	48 lbs.
2 lbs. (.043")	No. 18	48" x	96"	64 lbs.
2 lbs. (.043")	No. 18	48" x	120"	80 lbs.
2¼ lbs. (.048")	No. 16	48" x	72"	54 lbs.
2½ lbs. (.054")	No. 16	30" x	60"	31 lbs.
2½ lbs. (.054")	No. 16	48" x	72"	60 lbs.
2½ lbs. (.054")	No. 16	48" x	96"	64 lbs.
2½ lbs. (.054")	No. 16	48" x	120"	100 lbs.
3 lbs. (.065")	No. 14	30" x	60"	38 lbs.
3 lbs. (.065")	No. 14	36" x	96"	72 lbs.
3 lbs. (.065")	No. 14	48" x	72"	72 lbs.
3 lbs. (.065")	No. 14	48" x	96"	96 lbs.
3 lbs. (.065")	No. 14	48" x	120"	120 lbs.
3 lbs. (.065")	No. 14	60" x	120"	150 lbs.
*3 lbs. (.065")	No. 14	72" x	120"	180 lbs.
3½ lbs. (.075")	No. 13	30" x	60"	44 lbs.
3½ lbs. (.075")	No. 13	60" x	120"	175 lbs.
4 lbs. (.086")	No. 11	30" x	60"	50 lbs.
4 lbs. (.086")	No. 11	48" x	72"	96 lbs.
4 lbs. (.086")	No. 11	48" x	96"	128 lbs.
4 lbs. (.086")	No. 11	48" x	120"	160 lbs.
4 lbs. (.086")	No. 11	60" x	120"	200 lbs.
*4 lbs. (.086")	No. 11	72" x	120"	240 lbs.
4 lbs. (.086")	No. 11	60" x	144"	240 lbs.
4½ lbs. (.097")	No. 10	48" x	72"	108 lbs.
4½ lbs. (.097")	No. 10	48" x	120"	180 lbs.

(Continued on next page)

\*Carried in our Boston Warehouse only.  
For weight per square foot see pages 221 through 224.

## HOT ROLLED (SOFT) COPPER SHEETS (Cont.)

### Heavy Sizes (Cont.)

1½ Lbs. to 12 Lbs. Per Square Foot

Thickness Per Square Foot	Nearest B. & S. Gauge	Width	Length	Approx. Weight Per Sheet
*4½ lbs. (.097")	No. 10	72" x 120"		270 lbs.
5 lbs. (.108")	No. 10	48" x 72"		120 lbs.
*5 lbs. (.108")	No. 10	48" x 120"		200 lbs.
5 lbs. (.108")	No. 10	60" x 120"		250 lbs.
5 lbs. (.108")	No. 10	60" x 144"		300 lbs.
*5 lbs. (.108")	No. 10	72" x 120"		300 lbs.
5½ lbs. (.118")	No. 9	48" x 72"		132 lbs.
*6 lbs. (.129")	No. 8	57" x 93"		219 lbs.
*6 lbs. (.129")	No. 8	72" x 93"		277 lbs.
*6 lbs. (.129")	No. 8	82" x 93"		307 lbs.
6 lbs. (.129")	No. 8	48" x 72"		144 lbs.
*6 lbs. (.129")	No. 8	48" x 96"		192 lbs.
6 lbs. (.129")	No. 8	48" x 120"		240 lbs.
6 lbs. (.129")	No. 8	48" x 144"		300 lbs.
6 lbs. (.129")	No. 8	60" x 120"		300 lbs.
6 lbs. (.129")	No. 8	60" x 144"		360 lbs.
*6 lbs. (.129")	No. 8	72" x 120"		360 lbs.
7 lbs. (.151")	No. 7	48" x 72"		168 lbs.
*7½ lbs. (.162")	No. 6	57" x 93"		273 lbs.
*7½ lbs. (.162")	No. 6	72" x 93"		344 lbs.
*7½ lbs. (.162")	No. 6	82" x 93"		392 lbs.
*7½ lbs. (.162")	No. 6	48" x 72"		180 lbs.
8 lbs. (.172")	No. 5	48" x 72"		192 lbs.
8 lbs. (.172")	No. 5	60" x 120"		400 lbs.
8 lbs. (.172")	No. 5	60" x 144"		480 lbs.
8 lbs. (.172")	No. 5	72" x 120"		480 lbs.
9 lbs. (.194")	No. 4	48" x 72"		216 lbs.
12 lbs. (.259")	No. 2	48" x 72"		288 lbs.

\*Carried in our Boston Warehouse only.

Copper Rivets for use with the above sheets are listed on pages 138, 139, 140.  
Brass Spelter Solder (all grains) will be found in Welding and Brazing Section—  
Page 202

For weight per square foot see pages 221 through 224.

### COPPER ANODES

Over 99.9% Pure  
Trimmed and Untrimmed

#### OVAL

(From Hot Rolled Bar)  
Available in Many Sizes

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## HOT ROLLED (SOFT) COPPER SHEETS TINNED ONE SIDE

Thickness In Ounces	Nearest B. & S. Gauge	Width	Length	Approx. Weight Per Sheet
12 (.016")	No. 26	30"	x 60"	9.38 lbs.
14 (.019")	No. 25	30"	x 60"	10.94 lbs.
16 (.021")	No. 24	30"	x 60"	12.50 lbs.
16 (.021")	No. 24	36"	x 96"	24.00 lbs.
20 (.027")	No. 21	30"	x 96"	25.00 lbs.

## HOT ROLLED (SOFT) SHEET COPPER ROUGH LEAD COATED BOTH SIDES

Standard 12-15 Lb. Coating per 100 sq. ft.

Thickness In Ounces	Nearest B. & S. Gauge	Width	Length	Approx. Weight Per Sheet
**16 (.021")	No. 24	24"	x 96"	*16.00 lbs.
16 (.021")	No. 24	30"	x 96"	*20.00 lbs.
16 (.021")	No. 24	36"	x 96"	*24.00 lbs.

\* Weight of sheet before lead coating is applied.

\*\* Carried in our Newark Warehouse only.

For Heavy Coated Sheets see page 146

## HOT ROLLED (SOFT) COPPER CIRCLES PLAIN, NOT TINNED

Carried in Our Boston Warehouse Only

Thickness in Pounds	Nearest B. & S. Gauge	Diameter	Approx. Weight Per Circle
7.15 lbs. (.154)	No. 7	36"	53.00 lbs.
8.90 lbs. (.192)	No. 4	36"	66.00 lbs.

## COLD ROLLED COPPER SHEETS

Patent Leveled

Thickness In Ounces	Nearest B. & S. Gauge	Width	Length	Approx. Weight Per Sheet
10 (.013")	No. 26	16"	x 72"	5.00 lbs.
12 (.016")	No. 26	30"	x 60"	9.38 lbs.
14 (.019")	No. 25	24"	x 96"	14.00 lbs.
†14 (.019")	No. 25	28"	x 96"	16.33 lbs.
14 (.019")	No. 25	30"	x 60"	10.94 lbs.
14 (.019")	No. 25	30"	x 96"	17.50 lbs.
14 (.019")	No. 25	36"	x 96"	21.00 lbs.
16 (.021")	No. 23	18"	x 96"	12.00 lbs.
16 (.021")	No. 23	20"	x 96"	13.33 lbs.
†16 (.021")	No. 23	22"	x 96"	14.67 lbs.
16 (.021")	No. 23	24"	x 96"	16.00 lbs.
†16 (.021")	No. 23	26"	x 96"	17.33 lbs.
16 (.021")	No. 23	28"	x 96"	18.67 lbs.

(Continued on next page)

† Carried In Our Boston Warehouse Only.

For Weight per square foot see pages 221 through 224.



# ● ANACONDA COPPER



## COLD ROLLED COPPER SHEETS (Cont.)

### Patent Leveled

Thickness In Ounces	Nearest B. & S. Gauge	Width	Length	Approx. Weight Per Sheet
16 (.021")	No. 23	30" x	60"	12.50 lbs.
16 (.021")	No. 23	30" x	96"	20.00 lbs.
16 (.021")	No. 23	30" x	120"	25.00 lbs.
16 (.021")	No. 23	36" x	96"	24.00 lbs.
18 (.024")	No. 22	24" x	96"	18.00 lbs.
18 (.024")	No. 22	30" x	96"	22.50 lbs.
18 (.024")	No. 22	36" x	96"	27.00 lbs.
20 (.027")	No. 21	24" x	96"	20.00 lbs.
20 (.027")	No. 21	30" x	60"	15.50 lbs.
20 (.027")	No. 21	30" x	96"	25.00 lbs.
20 (.027")	No. 21	36" x	96"	30.00 lbs.
24 (.032")	No. 20	24" x	96"	24.00 lbs.
24 (.032")	No. 20	30" x	60"	18.50 lbs.
24 (.032")	No. 20	30" x	96"	30.00 lbs.
24 (.032")	No. 20	36" x	96"	36.00 lbs.
24 (.032")	No. 20	48" x	96"	48.00 lbs.
*26 (.035")	No. 19	36" x	96"	39.00 lbs.
28 (.037")	No. 19	30" x	96"	35.00 lbs.
28 (.037")	No. 19	36" x	96"	42.00 lbs.
32 (.043")	No. 17	30" x	96"	40.00 lbs.
32 (.043")	No. 17	36" x	96"	48.00 lbs.
32 (.043")	No. 17	48" x	96"	64.00 lbs.
*36 (.048")	No. 16	36" x	96"	54.00 lbs.

\*Carried In Our Philadelphia Warehouse Only.

### HEAVY SIZES

2½ lbs. (.054")	No. 16	48" x	120"	100 lbs.
2½ lbs. (.054")	No. 16	60" x	120"	125 lbs.
3 lbs. (.065")	No. 14	36" x	96"	72 lbs.
3 lbs. (.065")	No. 14	48" x	96"	96 lbs.
3 lbs. (.065")	No. 14	48" x	120"	120 lbs.
3 lbs. (.065")	No. 14	60" x	144"	180 lbs.
4 lbs. (.086")	No. 11	60" x	144"	240 lbs.
5 lbs. (.108")	No. 11	60" x	144"	300 lbs.
6 lbs. (.129")	No. 8	60" x	144"	360 lbs.

For weight per square foot see pages 221 through 224.

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## COLD ROLLED ANNEALED COPPER SHEETS

Thickness In Ounces	Nearest B. & S. Gauge	Width	Length	Approx. Weight Per Sheet
16 (.021")	No. 24	36"	x 96"	24.00 lbs.
18 (.024")	No. 22	36"	x 96"	27.00 lbs.
20 (.027")	No. 21	36"	x 96"	30.00 lbs.
24 (.032")	No. 20	36"	x 96"	36.00 lbs.
32 (.043")	No. 18	36"	x 96"	48.00 lbs.

## COLD ROLLED COPPER SHEETS

### TINNED ONE SIDE

Thickness In Ounces	Nearest B. & S. Gauge	Width	Length	Approx. Weight Per Sheet
14 (.019")	No. 25	30"	x 96"	17.50 lbs.
14 (.019")	No. 25	36"	x 96"	21.00 lbs.
16 (.021")	No. 24	24"	x 96"	16.00 lbs.
16 (.021")	No. 24	30"	x 60"	12.50 lbs.
16 (.021")	No. 24	30"	x 96"	20.00 lbs.
16 (.021")	No. 24	36"	x 96"	24.00 lbs.
18 (.024")	No. 22	30"	x 60"	14.00 lbs.
18 (.024")	No. 22	36"	x 96"	27.00 lbs.
20 (.027")	No. 21	24"	x 96"	20.00 lbs.
20 (.027")	No. 21	30"	x 96"	25.00 lbs.
20 (.027")	No. 21	36"	x 96"	30.00 lbs.
*22 (.030")	No. 20	36"	x 96"	33.00 lbs.
24 (.032")	No. 20	30"	x 96"	30.00 lbs.
24 (.032")	No. 20	36"	x 96"	36.00 lbs.
24 (.032")	No. 20	42"	x 96"	42.00 lbs.
24 (.032")	No. 20	48"	x 96"	48.00 lbs.
28 (.037")	No. 19	30"	x 96"	35.00 lbs.
28 (.037")	No. 19	36"	x 96"	42.00 lbs.
32 (.043")	No. 18	30"	x 96"	40.00 lbs.
32 (.043")	No. 18	36"	x 96"	48.00 lbs.
32 (.043")	No. 18	42"	x 96"	56.00 lbs.
32 (.043")	No. 18	48"	x 96"	64.00 lbs.

\*Carried in our Boston Warehouse only.

For weight per square foot see pages 221 through 224.

# ● ANACONDA COPPER



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## COLD ROLLED COPPER SHEETS POLISHED ONE SIDE

Thickness In Ounces	Nearest B. & S. Gauge	Width	Length	Approx. Weight Per Sheet
16 (.021")	No. 24	30"	x 96"	20.00 lbs.
16 (.021")	No. 24	36"	x 96"	24.00 lbs.
18 (.024")	No. 22	36"	x 96"	27.00 lbs.

## COLD ROLLED COPPER SHEETS POLISHED AND TINNED ONE SIDE

Thickness In Ounces	Nearest B. & S. Gauge	Width	Length	Approx. Weight Per Sheet
16 (.021")	No. 24	30"	x 96"	20.00 lbs.
16 (.021")	No. 24	36"	x 96"	24.00 lbs.
18 (.024")	No. 22	36"	x 96"	27.00 lbs.
20 (.027")	No. 21	36"	x 96"	30.00 lbs.
24 (.032")	No. 20	30"	x 96"	30.00 lbs.
24 (.032")	No. 20	36"	x 96"	36.00 lbs.

## CHROME PLATED COPPER SHEETS

Protex Covered

### BRIGHT FINISH

Thickness In Ounces	Nearest B. & S. Gauge	Width	Length	Approx. Weight Per Sheet
16 (.021")	No. 24	36"	x 96"	24.00 lbs.
18 (.024")	No. 22	36"	x 96"	27.00 lbs.
32 (.043")	No. 18	36"	x 96"	48.00 lbs.

## COLD ROLLED COPPER SHEETS

### ROUGH LEAD COATED BOTH SIDES

Standard 12-15 Lb. Coating

Thickness In Ounces	Nearest B. & S. Gauge	Width	Length	Approx. Weight Per Sheet
**16 (.021")	No. 24	24"	x 96"	*16.00 lbs.
16 (.021")	No. 24	30"	x 96"	*20.00 lbs.
16 (.021")	No. 24	36"	x 96"	*24.00 lbs.

\*Weight of sheet before Lead Coating is applied.

\*\*Carried in our Newark Warehouse only.

## HALF HARD COPPER SHEETS

In 10-Foot Lengths

Thickness	Width	Approx. Weight Per Foot	Thickness	Width	Approx. Weight Per Foot
1/16" (.062")	12"	3.0 lbs.	3/16" (.187")	12"	9.0 lbs.
3/32" (.093")	12"	4.5 lbs.	1/4" (.250")	12"	11.5 lbs.
1/8" (.125")	12"	6.0 lbs.			

Other Copper Sheet Products listed on Page 147.

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## COLD ROLLED ANNEALED COPPER IN ROLLS

About 75 to 100 Pounds Each  
Suitable for Spinning and Stamping

Thickness In Ounces	Nearest B. & S. Gauge	Width	Approx. Weight Per Linear Foot
6 (.008")	No. 32	12"	.37 lbs.
* 7 (.009")	No. 31	8"	.292 lbs.
8 (.010")	No. 30	12"	.46 lbs.
10 (.013")	No. 27	10"	.521 lbs.
10 (.013")	No. 27	12"	.625 lbs.
10 (.013")	No. 27	14"	.729 lbs.
12 (.016")	No. 26	8"	.500 lbs.
*12 (.016")	No. 26	9"	.562 lbs.
12 (.016")	No. 26	10"	.625 lbs.
*12 (.016")	No. 26	10½"	.656 lbs.
12 (.016")	No. 26	12"	.750 lbs.
12 (.016")	No. 26	14"	.875 lbs.
12 (.016")	No. 26	16"	1.000 lbs.
14 (.019")	No. 25	10"	.729 lbs.
14 (.019")	No. 25	10½"	.765 lbs.
14 (.019")	No. 25	12"	.875 lbs.
14 (.019")	No. 25	14"	1.021 lbs.
14 (.019")	No. 25	16"	1.167 lbs.
14 (.019")	No. 25	20"	1.457 lbs.
16 (.021")	No. 23	4"	.333 lbs.
16 (.021")	No. 23	5"	.415 lbs.
16 (.021")	No. 23	6"	.500 lbs.
16 (.021")	No. 23	7"	.581 lbs.
16 (.021")	No. 23	8"	.666 lbs.
16 (.021")	No. 23	9"	.750 lbs.
16 (.021")	No. 23	10"	.830 lbs.
16 (.021")	No. 23	12"	1.000 lbs.
16 (.021")	No. 23	14"	1.166 lbs.
16 (.021")	No. 23	15"	1.245 lbs.
16 (.021")	No. 23	16"	1.333 lbs.
16 (.021")	No. 23	18"	1.500 lbs.
16 (.021")	No. 23	20"	1.660 lbs.
18 (.024")	No. 22	6"	.563 lbs.
18 (.024")	No. 22	7"	.658 lbs.
18 (.024")	No. 22	8"	.750 lbs.
18 (.024")	No. 22	9"	.846 lbs.
18 (.024")	No. 22	10"	.940 lbs.
18 (.024")	No. 22	12"	1.125 lbs.
18 (.024")	No. 22	14"	1.316 lbs.

\*Carried in Boston Warehouse only.

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## COLD ROLLED ANNEALED COPPER IN ROLLS (Cont.)

Thickness In Ounces	About 75 to 100 Pounds Each Nearest B. & S. Gauge	Width	Approx. Weight Per Linear Foot
18 (.024")	No. 22	15"	1.410 lbs.
18 (.024")	No. 22	16"	1.500 lbs.
18 (.024")	No. 22	18"	1.770 lbs.
20 (.027")	No. 21	6"	.625 lbs.
20 (.027")	No. 21	10"	1.045 lbs.
20 (.027")	No. 21	12"	1.250 lbs.
20 (.027")	No. 21	14"	1.463 lbs.
20 (.027")	No. 21	18"	1.875 lbs.
24 (.032")	No. 20	8"	.990 lbs.
24 (.032")	No. 20	9"	1.125 lbs.
24 (.032")	No. 20	10"	1.250 lbs.
24 (.032")	No. 20	11"	1.360 lbs.
24 (.032")	No. 20	12"	1.500 lbs.
24 (.032")	No. 20	14"	1.750 lbs.
24 (.032")	No. 20	16"	2.000 lbs.
24 (.032")	No. 20	18"	2.250 lbs.
30 (.040")	No. 18	12"	1.870 lbs.
30 (.040")	No. 18	14"	2.180 lbs.
30 (.040")	No. 18	16"	2.490 lbs.
30 (.040")	No. 18	18"	2.800 lbs.
30 (.040")	No. 18	20"	3.350 lbs.
32 (.043")	No. 17	12"	2.000 lbs.
32 (.043")	No. 17	14"	2.324 lbs.
32 (.043")	No. 17	16"	2.656 lbs.
32 (.043")	No. 17	18"	3.000 lbs.
* (.050")	No. 16	12"	2.360 lbs.

\* Carried in our Boston Warehouse only.

## COLD ROLLED COPPER IN ROLLS

About 75 to 100 Pounds Each  
(Carried in our Newark Warehouse only)

Thickness In Ounces	Nearest B. & S. Gauge	Width	Approx. Weight Per Linear Foot
16 (.021")	No. 23	5"	.415 lbs.
16 (.021")	No. 23	6"	.500 lbs.
16 (.021")	No. 23	7"	.581 lbs.
16 (.021")	No. 23	8"	.666 lbs.
16 (.021")	No. 23	10"	.830 lbs.
16 (.021")	No. 23	12"	1.000 lbs.
16 (.021")	No. 23	14"	1.166 lbs.
16 (.021")	No. 23	15"	1.245 lbs.
16 (.021")	No. 23	16"	1.333 lbs.
16 (.021")	No. 23	18"	1.500 lbs.

WHITEHEAD METAL PRODUCTS COMPANY, Inc.

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# **ANACONDA COPPER •**

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## **COPPER ROOFING MATERIALS**

**A Full Line of Roofing Accessories is Available**

### **LEADERS**

**(Conductor Pipes or Down Spouts)**

**ELBOWS - SHOES - STRAPS - HOOKS**

**HEADS - STRAINERS - FLASHINGS**

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### **GUTTER**

**(Eaves Trough)**

**HANGERS - MITRES - END PIECES - OUTLETS**

**SHANKS AND CIRCLES**

**GUTTER SPIKES**

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**EDGING - RIDGE ROLL CLIPS - STORM NAILS**

**"CLASON" SNOW GUARDS**

**"ELECTRO-SHEET" COPPER**

**ROOFING SQUARES - ROLL COPPER - WIRE GUARDS**

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**SLATING NAILS - SHINGLE NAILS**

**"STRONGHOLD" SIDING NAILS**

**PURLIN NAILS**

**CORNICE BOLTS**

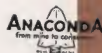
**SOLDER - SOLDERING IRONS - RIVETS**

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**STOCK SHIPMENTS FOR ECONOMY**



# • ANACONDA COPPER



## COLD ROLLED STRIP COPPER

Thickness In Ounces	Nearest B. & S. Gauge	Width	Length	Approx. Weight Per Sheet
16 (.021")	No. 24	8"	x 96"	5.33 lbs.
16 (.021")	No. 24	8 1/2"	x 120"	6.75 lbs.
16 (.021")	No. 24	9 13/16"	x 120"	7.59 lbs.
16 (.021")	No. 24	10"	x 96"	6.67 lbs.
16 (.021")	No. 24	11 3/4"	x 120"	9.79 lbs.
16 (.021")	No. 24	12"	x 96"	8.00 lbs.
16 (.021")	No. 24	13"	x 96"	8.67 lbs.
16 (.021")	No. 24	13 1/4"	x 120"	11.04 lbs.
16 (.021")	No. 24	14"	x 96"	9.33 lbs.
16 (.021")	No. 24	15"	x 96"	10.00 lbs.
16 (.021")	No. 24	16"	x 96"	10.67 lbs.
16 (.021")	No. 24	16 15/16"	x 120"	14.11 lbs.

For weight per square foot see pages 226 through 227.

## RECTANGULAR HARD DRAWN COPPER STRIP AND BARS

In Random 12-Foot Lengths

Dimensions	Approx. Weight Per Foot	Dimensions	Approx. Weight Per Foot	Dimensions	Approx. Weight Per Foot
3/8" x 3/32"	.136 lbs.	3/4" x 3/32"	.272 lbs.	1" x 1/8"	.482 lbs.
3/8" x 1/8"	.181 lbs.	3/4" x 1/8"	.361 lbs.	1" x 3/16"	.723 lbs.
1/2" x 1/16"	.120 lbs.	3/4" x 3/16"	.542 lbs.	1" x 1/4"	.964 lbs.
1/2" x 3/32"	.181 lbs.	3/4" x 1/4"	.723 lbs.	1" x 5/16"	1.210 lbs.
1/2" x 1/8"	.241 lbs.	3/4" x 5/16"	.910 lbs.	1" x 3/8"	1.450 lbs.
1/2" x 3/16"	.361 lbs.	3/4" x 3/8"	1.090 lbs.	1" x 1/2"	1.930 lbs.
1/2" x 1/4"	.482 lbs.	3/4" x 1/2"	1.450 lbs.	1 1/4" x 3/32"	.454 lbs.
5/8" x 1/16"	.150 lbs.	7/8" x 1/16"	.211 lbs.	1 1/4" x 1/8"	.603 lbs.
5/8" x 3/32"	.221 lbs.	7/8" x 3/32"	.318 lbs.	1 1/4" x 3/16"	.904 lbs.
5/8" x 1/8"	.301 lbs.	7/8" x 1/8"	.422 lbs.	1 1/4" x 1/4"	1.206 lbs.
5/8" x 3/16"	.452 lbs.	7/8" x 1/4"	.844 lbs.	1 1/4" x 5/16"	1.510 lbs.
5/8" x 1/4"	.603 lbs.	1" x 1/16"	.241 lbs.	1 1/4" x 3/8"	1.810 lbs.
3/4" x 1/16"	.181 lbs.	1" x 3/32"	.363 lbs.	1 1/2" x 3/32"	.545 lbs.

(Continued on next page)

**RECTANGULAR HARD DRAWN COPPER STRIP AND BARS (Cont.)**

In Random 12-Foot Lengths

Dimensions	Approx. Wt. Per Foot	Dimensions	Approx. Wt. Per Foot	Dimensions	Approx. Wt. Per Foot
1½" x ⅛"	.723 lbs.	2" x ¼"	1.930 lbs.	3" x ⅜"	2.170 lbs.
1½" x ⅜"	1.085 lbs.	2" x ⅝"	2.420 lbs.	3" x ½"	2.890 lbs.
1½" x ¼"	1.447 lbs.	2" x ¾"	2.890 lbs.	3" x ⅝"	4.340 lbs.
1½" x ⅝"	1.820 lbs.	2" x 1½"	3.860 lbs.	3" x 1"	5.790 lbs.
1½" x ¾"	2.170 lbs.	2" x ¾"	5.790 lbs.	3½" x ¼"	3.370 lbs.
1½" x 1½"	2.890 lbs.	2½" x ¼"	2.170 lbs.	4" x ⅛"	1.930 lbs.
1½" x ¾"	4.340 lbs.	2½" x ⅛"	1.200 lbs.	4" x ¼"	3.860 lbs.
1¾" x ⅛"	.844 lbs.	2½" x ⅜"	1.810 lbs.	4" x ⅝"	5.790 lbs.
1¾" x ⅜"	1.266 lbs.	2½" x ¼"	2.410 lbs.	4" x 1"	7.720 lbs.
1¾" x 1"	1.688 lbs.	2½" x ¾"	3.620 lbs.	5" x ¼"	4.820 lbs.
2" x ⅛"	.964 lbs.	2½" x 1½"	4.820 lbs.	6" x ¼"	5.790 lbs.
2" x ⅜"	1.450 lbs.	3" x ⅛"	1.450 lbs.		

**ROUND HARD DRAWN COPPER RODS**

In Random 12-Foot Lengths

Diameter	Approx. Weight Per Foot	Diameter	Approx. Weight Per Foot
⅛"	.047 lbs.	7/8"	2.32 lbs.
3/16"	.106 lbs.	1"	3.03 lbs.
¼"	.189 lbs.	1½"	3.83 lbs.
5/16"	.296 lbs.	1¾"	4.73 lbs.
¾"	.426 lbs.	1⅝"	5.73 lbs.
7/16"	.580 lbs.	1½"	6.82 lbs.
1/2"	.757 lbs.	1¾"	9.28 lbs.
5/8"	1.180 lbs.	2"	12.12 lbs.
¾"	1.70 lbs.		

**SILICON COPPER WELDING RODS**

See Welding and Brazing Section, Page 199

**SQUARE HARD DRAWN COPPER RODS**

In Random 12-Foot Lengths

Diam. Across Flats	Approx. Weight Per Foot	Diam. Across Flats	Approx. Weight Per Foot	Diam. Across Flats	Approx. Weight Per Foot
1/4" x 1/4"	.241 lbs.	5/8" x 5/8"	1.510 lbs.	1¼" x 1¼"	6.030 lbs.
5/16" x 5/16"	.377 lbs.	¾" x ¾"	2.170 lbs.	1½" x 1½"	8.680 lbs.
¾" x ¾"	.543 lbs.	7/8" x 7/8"	2.950 lbs.	1¾" x 1¾"	11.800 lbs.
1/2" x 1/2"	.965 lbs.	1" x 1"	3.860 lbs.	2" x 2"	15.400 lbs.

# ● ANACONDA COPPER



## ROUND SEAMLESS COPPER TUBES

In 12-Foot Lengths

(20-Foot Lengths Listed on Page 130)

Outside Diameter	Wall Thick. Stubs' Gauge	Inside Diameter	Approx. Weight Per Foot
3/16"	No. 21 (.032")	.123"	.061 lbs.
1/4"	No. 20 (.035")	.180"	.092 lbs.
1/4"	No. 16 (.065")	.120"	.146 lbs.
5/16"	No. 20 (.035")	.242"	.119 lbs.
3/8"	No. 19 (.042")	.291"	.170 lbs.
7/16"	No. 19 (.042")	.353"	.202 lbs.
1/2"	No. 18 (.049")	.402"	.269 lbs.
5/8"	No. 21 (.032")	.561"	.231 lbs.
5/8"	No. 18 (.049")	.527"	.343 lbs.
3/4"	No. 21 (.032")	.686"	.279 lbs.
3/4"	No. 17 (.058")	.634"	.488 lbs.
7/8"	No. 23 (.025")	.825"	.259 lbs.
7/8"	No. 17 (.058")	.759"	.576 lbs.
1"	No. 20 (.035")	.930"	.411 lbs.
1"	No. 16 (.065")	.870"	.739 lbs.
1 1/8"	No. 16 (.065")	.995"	.838 lbs.
1 1/4"	No. 15 (.072")	1.106"	1.030 lbs.
1 3/8"	No. 14 (.083")	1.209"	1.300 lbs.
1 1/2"	No. 16 (.065")	1.370"	1.140 lbs.
1 1/2"	No. 14 (.083")	1.334"	1.430 lbs.
1 5/8"	No. 14 (.083")	1.459"	1.550 lbs.
1 3/4"	No. 16 (.065")	1.620"	1.330 lbs.
1 3/4"	No. 13 (.095")	1.560"	1.910 lbs.
2"	No. 16 (.065")	1.870"	1.530 lbs.
2"	No. 14 (.083")	1.834"	1.940 lbs.
2"	No. 13 (.095")	1.810"	2.090 lbs.
2 1/2"	No. 16 (.065")	2.370"	1.930 lbs.
2 1/2"	No. 14 (.083")	2.334"	2.440 lbs.
2 1/2"	No. 12 (.109")	2.282"	3.170 lbs.
3"	No. 14 (.083")	2.834"	2.950 lbs.
3 1/2"	No. 14 (.083")	3.334"	3.450 lbs.
4"	No. 14 (.083")	3.834"	3.960 lbs.
4"	No. 10 (.134")	3.732"	6.300 lbs.
4 1/4"	No. 10 (.134")	3.982"	6.710 lbs.
4 1/2"	No. 10 (.134")	4.232"	7.120 lbs.
5"	No. 16 (.065")	4.870"	3.900 lbs.
5"	No. 12 (.109")	4.782"	6.490 lbs.
6"	No. 10 (.134")	5.732"	9.560 lbs.

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## ROUND SEAMLESS COPPER TUBES

In 20-Foot Lengths

(For 12-Foot Lengths Consult Page 129)

Outside Diameter	Wall Thick. In Inches	Inside Diameter	Approx. Weight Per Foot
3/8"	1/16" (.062")	1/4"	.237 lbs.
1/2"	1/16" (.062")	3/8"	.332 lbs.
1/2"	1/8" (.125")	1/4"	.568 lbs.
9/16"	3/32" (.095")	3/8"	.533 lbs.
5/8"	1/16" (.062")	1/2"	.426 lbs.
11/16"	3/32" (.095")	1/2"	.674 lbs.
11/16"	5/32" (.156")	3/8"	1.000 lbs.
3/4"	1/16" (.062")	5/8"	.521 lbs.
3/4"	3/32" (.093")	9/16"	.746 lbs.
3/4"	1/8" (.125")	1/2"	.947 lbs.
13/16"	3/32" (.093")	5/8"	.817 lbs.
1"	3/32" (.093")	13/16"	1.080 lbs.
1 1/16"	1/8" (.125")	1 3/16"	1.420 lbs.
1 1/4"	1/8" (.125")	1"	1.710 lbs.

## ROUND SEAMLESS COPPER TUBES

### I. D. Sizes

In 20-Foot Lengths

Inside Diameter	Wall Thick. Stub's Gauge	Outside Diameter	Approx. Weight Per Foot
*1 1/4"	No. 14 (.083")	1.416"	1.35 lbs.
1 1/4"	No. 12 (.109")	1.468"	1.80 lbs.
*1 1/4"	No. 10 (.134")	1.518"	2.25 lbs.
1 1/4"	No. 9 (.148")	1.546"	2.51 lbs.
1 1/4"	No. 7 (.180")	1.610"	3.13 lbs.
*1 1/2"	No. 16 (.065")	1.630"	1.28 lbs.
*1 1/2"	No. 14 (.083")	1.666"	1.60 lbs.
1 1/2"	No. 12 (.109")	1.718"	2.13 lbs.
1 1/2"	No. 10 (.134")	1.768"	2.67 lbs.
1 1/2"	No. 9 (.148")	1.796"	2.96 lbs.
*1 1/2"	No. 7 (.180")	1.860"	3.68 lbs.
1 3/4"	No. 12 (.109")	1.968"	2.47 lbs.
*2"	No. 16 (.065")	2.130"	1.63 lbs.
*2"	No. 14 (.083")	2.166"	2.11 lbs.
*2"	No. 12 (.109")	2.218"	2.80 lbs.

\* Carried in 12-Foot and 20-Foot Lengths.

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## ROUND SEAMLESS COPPER TUBES (Cont.)

### I. D. Sizes (Cont.)

In 20-Foot Lengths

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Inside Diameter	Wall Thick. Stub's Gauge	Outside Diameter	Approx. Weight Per Foot
2"	No. 11 (.120")	2.240"	3.09 lbs.
*2"	No. 10 (.134")	2.268"	3.48 lbs.
2"	No. 9 (.148")	2.296"	3.86 lbs.
2"	No. 8 (.165")	2.330"	4.34 lbs.
2"	No. 6 (.203")	2.406"	5.44 lbs.
*2½"	No. 16 (.065")	2.630"	2.03 lbs.
*2½"	No. 14 (.083")	2.666"	2.61 lbs.
2½"	No. 12 (.109")	2.718"	3.46 lbs.
*2½"	No. 10 (.134")	2.768"	4.30 lbs.
*2½"	No. 8 (.165")	2.830"	5.35 lbs.
2½"	No. 7 (.180")	2.860"	5.87 lbs.
*2½"	No. 6 (.203")	2.906"	6.67 lbs.
3"	No. 16 (.065")	3.130"	2.42 lbs.
*3"	No. 14 (.083")	3.166"	3.12 lbs.
3"	No. 12 (.109")	3.218"	4.12 lbs.
3"	No. 10 (.134")	3.268"	5.11 lbs.
3"	No. 9 (.148")	3.296"	5.67 lbs.
*3"	No. 8 (.165")	3.330"	6.35 lbs.
3"	No. 7 (.180")	3.360"	6.97 lbs.
3"	No. 4 (.238")	3.476"	9.38 lbs.
*3½"	No. 16 (.065")	3.630"	2.82 lbs.
3½"	No. 14 (.083")	3.666"	3.61 lbs.
*3½"	No. 12 (.109")	3.718"	4.79 lbs.
*3½"	No. 10 (.134")	3.768"	5.93 lbs.
*3½"	No. 8 (.165")	3.830"	7.36 lbs.
*3½"	No. 7 (.180")	3.860"	8.06 lbs.
3½"	No. 5 (.220")	3.940"	9.96 lbs.
3½"	No. 3 (.259")	4.018"	11.80 lbs.
*4"	No. 14 (.083")	4.166"	4.97 lbs.
4"	No. 12 (.109")	4.218"	5.49 lbs.
4"	No. 10 (.134")	4.268"	6.74 lbs.
*4"	No. 9 (.148")	4.296"	7.48 lbs.
4"	No. 8 (.165")	4.330"	8.37 lbs.
*4"	No. 7 (.180")	4.360"	9.16 lbs.
4"	No. 6 (.203")	4.406"	10.40 lbs.
4"	No. 4 (.238")	4.476"	12.30 lbs.
4"	No. 3 (.259")	4.518"	13.40 lbs.

\* Carried in 12-foot and 20-foot lengths.

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# ANACONDA COPPER •

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## ROUND SEAMLESS COPPER TUBES (Cont.)

### I. D. Sizes (Cont.)

In 20-Foot Lengths

Inside Diameter	Wall Thick. Stub's Gauge	Outside Diameter	Approx. Weight Per Foot
4 1/2"	No. 10 (.134")	4.768"	7.56 lbs.
4 1/2"	No. 9 (.148")	4.796"	8.37 lbs.
4 1/2"	No. 8 (.165")	4.830"	9.37 lbs.
4 1/2"	No. 7 (.180")	4.860"	10.30 lbs.
4 1/2"	No. 6 (.203")	4.906"	11.60 lbs.
4 1/2"	No. 4 (.238")	4.976"	13.70 lbs.
4 1/2"	No. 3 (.259")	5.018"	15.03 lbs.
5"	No. 10 (.134")	5.268"	8.37 lbs.
5"	No. 9 (.148")	5.296"	9.28 lbs.
5"	No. 8 (.165")	5.330"	10.40 lbs.
5"	No. 7 (.180")	5.360"	11.30 lbs.
5"	No. 6 (.203")	5.406"	12.90 lbs.
5"	No. 5 (.220")	5.440"	14.00 lbs.
5 1/2"	No. 3 (.259")	6.018"	7.01 lbs.
6"	No. 14 (.083")	6.166"	6.14 lbs.
6"	No. 12 (.109")	6.218"	8.10 lbs.
6"	No. 10 (.134")	6.268"	9.99 lbs.
6"	No. 9 (.148")	6.296"	11.00 lbs.
6"	No. 8 (.165")	6.330"	12.40 lbs.
*6"	No. 5 (.220")	6.440"	16.70 lbs.
6"	No. 3 (.259")	6.518"	19.74 lbs.
6"	(.375")	6.750"	28.60 lbs.
7"	No. 9 (.148")	7.296"	12.80 lbs.
8"	No. 14 (.083")	8.166"	8.84 lbs.
8"	No. 10 (.134")	8.268"	13.20 lbs.
9"	No. 10 (.134")	9.268"	14.90 lbs.
10"	No. 12 (.109")	10.218"	12.30 lbs.
10"	No. 11 (.120")	10.240"	14.70 lbs.
10"	No. 10 (.134")	10.268"	16.51 lbs.
10"	No. 9 (.148")	10.296"	18.20 lbs.
10"	No. 8 (.165")	10.330"	20.40 lbs.
10"	No. 6 (.203")	10.406"	25.20 lbs.

\* Carried in 12-foot and 20-foot lengths.

STOCK SHIPMENTS FOR ECONOMY



## ANNEALED COPPER FLUE FERRULES

Prompt Shipment from Mill

Inside Diameter	Width or Length	Thick.	Approx. No. Per Pound	Inside Diameter	Width or Length	Thick.	Approx. No. Per Pound
13/4"	5/8"	1/32"	26	2 1/2"	5/8"	1/16"	9
13/4"	5/8"	1/16"	14	2 1/2"	3/4"	1/16"	8
13/4"	5/8"	1/32"	21	3"	7/8"	1/16"	6
17/8"	5/8"	1/16"	13	3"	5/8"	1/32"	15
2"	5/8"	1/32"	22	3"	3/4"	1/32"	13
2"	3/4"	1/32"	18	3"	5/8"	1/16"	9
2"	5/8"	1/16"	14	3"	5/8"	3/32"	6
2"	5/8"	3/32"	9	3"	7/8"	1/32"	11
2"	3/4"	1/16"	9	3"	3/4"	1/16"	7
2"	3/4"	3/32"	7	3 1/2"	7/8"	1/32"	10
2"	5/8"	3/64"	16	3 1/2"	7/8"	1/16"	5
2 1/4"	5/8"	1/32"	20	4"	7/8"	1/32"	9
2 1/4"	5/8"	1/16"	11	4"	7/8"	1/16"	5
2 1/2"	5/8"	1/32"	18	4"	1"	1/32"	8
2 1/2"	3/4"	1/32"	15	4"	1"	1/16"	4

The above sizes are some of the many Regular Sizes made. Superheater Sizes (over 4" inside diameter) can also be furnished promptly.

## SOFT SEAMLESS COPPER TUBING IN COILS

Outside Diameter	Wall Thick. Stubs' Gauge	Inside Diameter	Approx. Weight Per Foot
1/8"	No. 21 (.032")	.061"	.036 lbs.
3/16"	No. 21 (.032")	.123"	.061 lbs.
1/4"	No. 21 (.032")	.186"	.085 lbs.
5/16"	No. 21 (.032")	.248"	.110 lbs.
3/8"	No. 20 (.035")	.305"	.145 lbs.
** 5/16"	No. 20 (.035")	.242"	.118 lbs.
1/2"	No. 20 (.035")	.430"	.198 lbs.
** 1/2"	No. 19 (.042")	.416"	.234 lbs.
5/8"	No. 19 (.042")	.541"	.298 lbs.
3/4"	No. 19 (.042")	.666"	.362 lbs.
1"	No. 19 (.042")	.916"	.489 lbs.
1 1/4"	No. 18 (.049")	1.152"	.716 lbs.
* 1 1/2"	No. 19 (.042")	1.416"	.745 lbs.
1 1/2"	No. 17 (.058")	1.384"	1.020 lbs.

\*Carried in our Buffalo Warehouse only.

\*\* Carried in our Boston Warehouse only.

## SOFT SEAMLESS COPPER TUBING IN COILS

### DEHYDRATED AND SEALED

For Refrigeration Installation

Outside Diameter	Wall Thick. Stubs' Gauge	Inside Diameter	Length of Coil	Approx. Weight Per Foot
1/4"	No. 20 (.035")	.180"	50 Feet	.092 lbs.
3/8"	No. 20 (.035")	.305"	50 Feet	.145 lbs.
1/2"	No. 20 (.035")	.430"	50 Feet	.198 lbs.
1/2"	No. 20 (.035")	.430"	100 Feet	.198 lbs.
5/8"	No. 20 (.035")	.555"	50 Feet	.251 lbs.

## HARD DRAWN SEAMLESS COPPER PIPE

Deoxidized

In 12-Foot Lengths

### Standard Pipe Sizes

Size I.P.S.	Wall Thickness	Outside Diameter	Inside Diameter	Approx. Weight Per Foot
1/8"	.062"	.405"	.281"	.26 lbs.
1/4"	.082"	.540"	.375"	.46 lbs.
3/8"	.090"	.675"	.494"	.64 lbs.
1/2"	.107"	.840"	.625"	.96 lbs.
3/4"	.114"	1.050"	.822"	1.30 lbs.
1"	.126"	1.315"	1.062"	1.83 lbs.
1 1/4"	.146"	1.660"	1.368"	2.69 lbs.
1 1/2"	.150"	1.900"	1.600"	3.20 lbs.
2"	.156"	2.375"	2.062"	4.23 lbs.
2 1/2"	.187"	2.875"	2.500"	6.14 lbs.
3"	.219"	3.500"	3.062"	8.75 lbs.
3 1/2"	.250"	4.000"	3.500"	11.41 lbs.
4"	.250"	4.500"	4.000"	12.94 lbs.
5"	.250"	5.563"	5.063"	16.21 lbs.
6"	.250"	6.625"	6.125"	19.41 lbs.

### Pipe Fittings

#### Standard Pipe Sizes

Elbows, Tees, Couplings, Plugs, etc.

(Refer to Pages 85, 136)

# • ANACONDA COPPER



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## COPPER WATER TUBES

Deoxidized

For Plumbing—Heating—Gas and Oil Lines  
Available in Soft and Hard Temper

### TYPE "K"

Soft—In Coils

For Underground Service and Interior Plumbing  
Also Suitable for Gas, Steam and Oil Lines and Industrial Purposes

Nominal Size	Wall Thickness	Outside Diameter	Inside Diameter	Length of Coil	Approx. Weight Per Foot
1/8"	.032"	.125"	.061"	60 Feet	.085 lbs.
3/8"	.049"	.500"	.402"	60 Feet	.269 lbs.
1/2"	.049"	.625"	.527"	60 Feet	.344 lbs.
* 1/2"	.049"	.625"	.527"	45 Feet	.344 lbs.
* 3/4"	.065"	.875"	.745"	30 Feet	.641 lbs.
* 3/4"	.065"	.875"	.745"	45 Feet	.641 lbs.
3/4"	.065"	.875"	.745"	60 Feet	.641 lbs.
1"	.065"	1.125"	.995"	60 Feet	.839 lbs.
1 1/4"	.065"	1.375"	1.245"	60 Feet	1.040 lbs.
* 1 1/4"	.065"	1.375"	1.245"	30 Feet	1.040 lbs.
* 2"	.083"	2.125"	1.959"	20 Feet	2.060 lbs.

\*Carried in our Newark Warehouse only (2" size also carried in Hard Tube).

### TYPE "L"

For General Plumbing Purposes

Hard—In 20-Foot Lengths  
Soft—In Coils of 60 Feet

Nominal Size	Wall Thickness	Outside Diameter	Inside Diameter	Approx. Weight Per Foot
3/8"	.035"	.500"	.430"	.198 lbs.
1/2"	.040"	.625"	.445"	.285 lbs.
3/4"	.045"	.875"	.785"	.445 lbs.
1"	.050"	1.125"	1.025"	.655 lbs.
1 1/4"	.055"	1.375"	1.265"	.884 lbs.
1 1/2"	.060"	1.625"	1.505"	1.14 lbs.
2"	.070"	2.125"	1.985"	1.75 lbs.
2 1/2"	.080"	2.625"	2.465"	2.48 lbs.

### TYPE "M"

For General Plumbing Purposes With Solder Fittings Only

Hard—In 20-Foot Lengths

Nominal Size	Wall Thickness	Outside Diameter	Inside Diameter	Approx. Weight Per Foot
1/2"	.028"	.625"	.569"	.203 lbs.
3/4"	.032"	.875"	.811"	.328 lbs.
1"	.035"	1.125"	1.055"	.464 lbs.
1 1/4"	.042"	1.375"	1.291"	.681 lbs.

Note: Type "M" not recommended for underground installations.

Water Tubes up to 8" (nominal sizes) can be shipped promptly.





# ANACONDA COPPER •

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## SOFT BARE COPPER WIRE IN COILS

About 10 to 25 Pounds			
Diameter B. & S. Gauge	Approx. Weight Per 100 Feet	Diameter B. & S. Gauge	Approx. Weight Per 100 Feet
No. 24 (.020")	.12 lbs.	No. 12 (.081")	2.00 lbs.
No. 23 (.022")	.15 lbs.	No. 11 (.091")	2.50 lbs.
No. 22 (.025")	.19 lbs.	No. 10 (.102")	3.10 lbs.
No. 21 (.028")	.24 lbs.	No. 9 (.114")	4.00 lbs.
No. 20 (.032")	.30 lbs.	No. 8 (.128")	4.70 lbs.
No. 19 (.036")	.39 lbs.	No. 7 (.144")	6.30 lbs.
No. 18 (.040")	.49 lbs.	No. 6 (.162")	7.95 lbs.
No. 17 (.045")	.60 lbs.	No. 5 (.182")	10.00 lbs.
No. 16 (.050")	.80 lbs.	No. 4 (.204")	12.60 lbs.
No. 15 (.057")	1.00 lbs.	No. 3 (.229")	15.90 lbs.
No. 14 (.064")	1.20 lbs.	1/4" (.250")	18.90 lbs.

Copper Wire can also be furnished on spools. Prompt shipment.

## TUBE FITTINGS

For Copper Tubes

Nominal Sizes of

1/4" 3/8" 1/2" 3/4" 1" 1 1/4" 1 1/2" 2"

In Forms Such as

### CAST BRONZE SOLDER TYPE

90° Elbows—Couplings—Bushings

45° Elbows—Eccentric Couplings—Tees

90° Drop Ear Elbows—Adapters—Drop Ear Tees

Unions—Fitting End Plugs—Crosses

Flanged Unions—Tube End Caps—Flanged Elbows

Range Boiler Couplings and Elbows

Globe Stop Valves

Stop and Waste Valves

Gate Valves

Angle Stop Valves

Angle Stop and Waste Valves

Bulk Head Fittings

Return Bends—Flanges—Expansion Joints

# ● ANACONDA COPPER



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## TUBE FITTINGS (Cont.)

### WROUGHT COPPER SOLDER TYPE

Elbows—Tees—Adapters—Caps—Reducers

Range Boiler Fittings

3-Piece Unions

Drop Ear Brackets

### CAST BRONZE FLARED TYPE

Nominal Sizes of

$\frac{1}{8}$ "    $\frac{1}{4}$ "    $\frac{3}{8}$ "    $\frac{1}{2}$ "    $\frac{3}{4}$ "   1"    $1\frac{1}{4}$ "    $1\frac{1}{2}$ "   2"

Tube Nuts—Nuts With Pipe Threads

Couplings—Adapters—Elbows—Tees—Caps

Reducers—Terminal Fittings—Bulk Head Fittings

Return Bends

Gate Valves—Stop and Drain Valves—Angle Valves

Angle Stop and Drain Valves

Sizes and Types of Fittings not listed above can be furnished promptly

## ACCESSORIES

Copper Tube Straps—Sizing Tools—Flanging Tools

Solder—95% Tin and 5% Antimony

"Nokorode" Soldering Paste

Everdur Bolts and Nuts—Machine Screws and Wood Screws

Write us for booklets B-1, "Anaconda Pipe, Copper Tubes and Fittings" and C-24a, "Roughing-In Dimensions for Anaconda Fittings."

WHITEHEAD METAL PRODUCTS COMPANY, Inc.

## FLAT HEAD COPPER BELT RIVETS ONLY

In One-Pound Boxes

In Lengths of

Size										
No. 5	—	—	—	—	—	—	—	—	1 1/4"	1 1/2"
No. 6	—	—	1/2"	5/8"	—	3/4"	—	1"	1 1/4"	1 1/2"
No. 7	—	—	1/2"	5/8"	—	3/4"	—	1"	1 1/4"	1 1/2"
No. 8	—	—	1/2"	5/8"	—	3/4"	—	1"	1 1/4"	1 1/2"
No. 9	—	3/8"	1/2"	5/8"	—	3/4"	—	1"	—	—
No. 10	1/4"	3/8"	1/2"	5/8"	—	3/4"	—	1"	1 1/4"	1 1/2"
No. 12	1/4"	3/8"	1/2"	5/8"	1 1/16"	3/4"	7/8"	1"	1 1/8"	1 1/4"
No. 14	1/4"	3/8"	1/2"	5/8"	—	3/4"	—	1"	—	—
No. 15	—	3/8"	1/2"	5/8"	—	3/4"	—	1"	—	—

## FLAT HEAD COPPER BELT RIVETS AND BURS

(Mixed)

In One-Pound Boxes

In Lengths of

Size										
No. 6	1/2"	5/8"	3/4"	—	1"	—	—	—	—	—
No. 7	1/2"	5/8"	3/4"	—	1"	—	1 1/4"	—	1 1/2"	—
No. 8	1/2"	5/8"	3/4"	—	1"	—	1 1/4"	—	—	—
No. 9	1/2"	—	3/4"	—	—	—	—	—	—	—
No. 10	1/2"	5/8"	3/4"	—	1"	—	—	—	—	—
No. 12	—	—	—	7/8"	—	—	1 1/4"	—	1 1/2"	—

## COPPER BURS

In One-Pound Boxes

Sizes of

Nos. 5, 6, 7, 8, 9, 10, 12, 14, 15

## COPPER BRAKE BAND RIVETS

(Solid—Countersunk Head)

In One-Pound Boxes

In Lengths of

Size					
No. 6	1/2"	5/8"	3/4"	7/8"	1"
No. 7	1/2"	5/8"	3/4"	7/8"	1"
No. 8	1/2"	5/8"	3/4"	7/8"	1"
No. 9	1/2"	5/8"	3/4"	—	1"
No. 10	1/2"	5/8"	3/4"	—	1"

For Weights of Rivets see page 141.



## OVAL HEAD COPPER TRUNK RIVETS

In One-Pound Boxes

In Lengths of

Size				
No. 9	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	1"

## FLAT HEAD COPPER HOSE RIVETS

In One-Pound Boxes

In Lengths of

Size			
No. 7	$\frac{3}{8}$ "	$\frac{1}{2}$ "	
No. 8		$\frac{1}{2}$ "	$\frac{3}{4}$ "

## COPPER RIVETS

In One-Pound Boxes

### ROUND HEAD

In Lengths of

Dia.														
$\frac{1}{16}$ "	$\frac{1}{8}$ "	$\frac{3}{16}$ "	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "									
$\frac{3}{32}$ "	$\frac{1}{8}$ "	$\frac{3}{16}$ "	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "								
$\frac{1}{8}$ "	—	$\frac{3}{16}$ "	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	$\frac{7}{8}$ "	1"				
$\frac{3}{16}$ "	—	—	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	$\frac{7}{8}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	2"	
$\frac{1}{4}$ "	—	—	—	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	$\frac{7}{8}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	2"	
$\frac{5}{16}$ "	—	—	—	—	—	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	—	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	2"	$2\frac{1}{2}$ "
$\frac{3}{8}$ "	—	—	—	—	—	—	—	$\frac{3}{4}$ "	—	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	2"	$2\frac{1}{2}$ " 3"
$\frac{1}{2}$ "	—	—	—	—	—	—	—	—	—	—	$1\frac{1}{2}$ "	2"	$2\frac{1}{2}$ "	3"

### COUNTERSUNK HEAD

In Lengths of

Diameter										
$\frac{1}{8}$ "	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	1"			
$\frac{3}{16}$ "	—	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	2"
$\frac{1}{4}$ "	—	—	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	2"
$\frac{5}{16}$ "	—	—	—	—	—	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	2"
$\frac{3}{8}$ "	—	—	—	—	—	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	2"
$\frac{1}{2}$ "	—	—	—	—	—	—	—	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	2"

For Weights of Rivets see page 141.

## COPPER RIVETS (Cont.)

In One-Pound Boxes

### FLAT HEAD TINNERS'

In Sizes of

$\frac{1}{2}$ lb. to M	$1\frac{1}{2}$ lb. to M	3 lb. to M	6 lb. to M
$\frac{3}{4}$ lb. to M	$1\frac{3}{4}$ lb. to M	$3\frac{1}{2}$ lb. to M	8 lb. to M
1 lb. to M	2 lb. to M	4 lb. to M	10 lb. to M
$1\frac{1}{4}$ lb. to M	$2\frac{1}{2}$ lb. to M	5 lb. to M	12 lb. to M

### OVAL HEAD BRAZIER'S

In 5-Pound Boxes

In Sizes of

Nos.	00	0	1	2	3	4
Nos.	5	6	7	8		

### FLAT HEAD BRAZIER'S

In 5-Pound Boxes

In Lengths of

Diameter					
$\frac{1}{4}$ "	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	
$\frac{5}{16}$ "	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	2"
$\frac{3}{8}$ "	—	1"	—	$1\frac{1}{2}$ "	2"
$\frac{1}{2}$ "	—	1"	—	$1\frac{1}{2}$ "	2"

## COPPER WASHERS

In One-Pound Boxes or in Bulk

For Bolts and Rivets

Size Bolt	Outside Diam.	Inside Diam.	Thick.	Approx. No. Per Pound
$\frac{3}{16}$ "	$\frac{1}{2}$ "	$\frac{7}{32}$ "	.050"	350
$\frac{1}{4}$ "	$\frac{5}{8}$ "	$\frac{9}{32}$ "	.065"	200
$\frac{5}{16}$ "	$\frac{3}{4}$ "	$1\frac{1}{32}$ "	.065"	135
$\frac{3}{8}$ "	1"	$1\frac{3}{32}$ "	.065"	70
$\frac{1}{2}$ "	$1\frac{3}{8}$ "	$\frac{9}{16}$ "	.080"	32
$\frac{5}{8}$ "	$1\frac{3}{4}$ "	$1\frac{1}{16}$ "	.102"	16
$\frac{3}{4}$ "	2"	$1\frac{3}{16}$ "	.102"	12

# • ANACONDA COPPER



## WEIGHTS OF COPPER RIVETS AND BURS

### COPPER BELT RIVETS

In Lengths of

Size	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"
Approximate Number Per Pound								
No. 5	—	—	55	50	47	39	35	30
No. 6	—	103	93	83	73	57	49	42
No. 7	—	159	143	127	112	89	74	62
No. 8	—	206	180	150	133	105	86	75
No. 9	—	260	208	183	160	129		
No. 10	386	302	256	216	192	147	121	104
No. 12	525	412	330	287	244	191		
No. 14	871	702	597	490	435	336		
No. 15	1263	934	755	628	540	420		

For weights of special sizes such as Size No. 12—5/16", 7/16", 11/16", 3/8" and 1/8" long use intermediate count in the above table.

### BRAKE BAND RIVETS

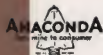
In Lengths of

Size	1/2"	5/8"	3/4"	7/8"	1"
Approximate Number Per Pound					
No. 6	—	—	110	95	86
No. 7	196	168	142	123	108
No. 8	226	189	164	144	128
No. 9	308	255	211	—	168

### COPPER BURS

Size	Appr. No. Per Lb.	O. D.	I. D.	Thick.	Size	Appr. No. Per Lb.	O. D.	I. D.	Thick.
No. 5	89	.813	.223	.064	No. 10	750	.406	.138	.036
No. 6	184	.656	.206	.057	No. 12	1243	.360	.124	.028
No. 7	358	.500	.176	.050	No. 14	2071	.313	.093	.022
No. 8	465	.469	.166	.045	No. 15	3270	.281	.086	.020
No. 9	571	.438	.146	.040					





# ANACONDA COPPER •

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## WEIGHTS OF COPPER RIVETS (Cont.)

### O. H. COPPER TRUNK RIVETS

Size	In Lengths of			
	1/2"	5/8"	3/4"	1"
Approximate Number Per Pound				
No. 9	178	162	141	130

### ROUND AND \*COUNTERSUNK HEAD

Lengths	Diameters							
	1/16"	3/32"	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"
Approximate Number Per Pound								
1/8"	4500	1400						
3/16"	3700	1250	640					
1/4"	3000	1100	585	225				
5/16"	2600	950	515	200	86			
3/8"	2200	870	448	180	78			
1/2"	—	700	372	144	74	42		
5/8"	—	—	320	128	65	37		
3/4"	—	—	271	112	57	33	22	
1"	—	—	205	90	45	28	18	8 3/4
1 1/4"	—	—	—	75	38	24	16	7 3/4
1 1/2"	—	—	—	64	34	21	14	7
2"	—	—	—	50	27	17	11	5 3/8
2 1/2"	—	—	—	—	—	—	9	5
3"	—	—	—	—	—	—	8 1/2	4 1/4

\* Countersunk Head Rivets contain approximately 10% more Rivets per pound than Round Head.

### OVAL HEAD BRAZIER'S

Size	00	0	1	2	3	4	5	6	7	8
Appr. No. Per Lb.	229	141	65	45	39	25	20	17	13	7

### FLAT HEAD BRAZIER'S

Diameters	Lengths					
	Approximate Number Per Pound					
	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
1/4"	45	39	34	30	26	
5/16"	—	26	22	20	19	15
3/8"	—	—	16	13	12	10
1/2"	—	—	8	7	6	5

## FLAT HEAD COPPER WIRE NAILS

Common Head

In 5-Pound Boxes and 100-Pound Kegs

### Standard Sizes

Size	Length	Stubs' Gauge	Approx. No. Per Pound	Size	Length	Stubs' Gauge	Approx. No. Per Pound
—	5/8"	16 (.065")	1480	5d	1 3/4"	12 (.109")	172
—	3/4"	16 (.065")	1216	5d	1 3/4"	11 (.120")	145
—	3/4"	15 (.072")	955	6d	*2"	12 (.109")	170
—	* 3/4"	14 (.083")	765	6d	2"	11 (.120")	128
—	7/8"	15 (.072")	820	6d	2"	10 (.134")	105
—	* 7/8"	14 (.083")	680	8d	2 1/2"	10 (.134")	84
2d	*1"	15 (.072")	515	10d	3"	9 (.148")	57
2d	*1"	14 (.083")	460	16d	3 1/2"	8 (.165")	40
3d	1 1/4"	14 (.083")	400	20d	4"	6 (.203")	30
3d	*1 1/4"	11 (.120")	207	30d	4 1/2"	5 (.220")	15
4d	*1 1/2"	14 (.083")	325	40d	5"	4 (.238")	12
4d	1 1/2"	12 (.109")	200	60d	6"	2 (.284")	7
4d	*1 1/2"	11 (.120")	178				

\*Special sizes. Available for prompt shipment.

## FLAT HEAD COPPER WIRE SLATING NAILS

In 5-Pound Boxes and 100-Pound Kegs

### Standard Sizes

Size	Length	Stubs' Gauge	Approx. No. Per Pound	Size	Length	Stubs' Gauge	Approx. No. Per Pound
—	7/8"	12 (.109")	330	4d	1 1/2"	10 (.134")	124
2d	1"	12 (.109")	270	5d	1 3/4"	10 (.134")	112
3d	1 1/4"	12 (.109")	216	6d	2"	12 (.109")	158
3d	1 1/4"	11 (.120")	196	6d	2"	11 (.120")	120
3d	1 1/4"	10 (.134")	144	6d	2"	10 (.134")	100
4d	1 1/2"	12 (.109")	180	8d	2 1/2"	10 (.134")	94
4d	1 1/2"	11 (.120")	160	10d	3"	10 (.134")	74

For Slating Nails, Cut Nails and Storm Nails see pages 144, 145



# ANACONDA COPPER •

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## "STRONGHOLD" COPPER WIRE NAILS

In 5-Pound Boxes and 100-Pound Kegs

Prompt Shipment

A Threaded Firm Holding Nail for Multibric Siding, Shingles  
and other Roofing Purposes

**Plain or Oxidized**

Made in Common Head and Slating Head

In All Standard or Special Sizes

**Most Popular Sizes are**

1" No.15(.072")—1 $\frac{1}{8}$ " No.15(.072")—1 $\frac{1}{4}$ " No.14(.083")—1 $\frac{1}{2}$ " No.12(.109")

## COPPER GUTTER SPIKES

In Bulk

7" long x  $\frac{3}{16}$ " diameter

## COPPER STORM (PINS) NAILS

**Octagon Head**

For Asbestos Shingles

In 5-Pound Boxes and 100-Pound Kegs

$\frac{3}{4}$ " long—No. 14 (.064")

Approximately 269 Pieces Per Pound

## FLAT HEAD CUT COPPER TACKS

In One-Pound Boxes

Length	Ounce	Approx. No. Per Pound	Length	Ounce	Approx. No. Per Pound
$\frac{1}{4}$ "	2	6400	$\frac{5}{8}$ "	10	1020
$\frac{5}{16}$ "	2 $\frac{1}{2}$	4500	$\frac{3}{4}$ "	14	780
$\frac{3}{8}$ "	3	1980	$\frac{7}{8}$ "	18	576
$\frac{7}{16}$ "	4	1500	1"	22	480
$\frac{1}{2}$ "	6	1375	1 $\frac{1}{4}$ "	26	280

Sizes not listed also Oval Copper Tacks and Bronze (flat and oval head) Tacks  
can be shipped promptly.



## FLAT HEAD CUT COPPER NAILS

In 5-Pound Boxes and 100-Pound Kegs

### REGULAR NAILS

Size	Length	Approx. No. Per Pound	Size	Length	Approx. No. Per Pound
—	3/4"	800	6d	2"	96
—	7/8"	560	8d	2 1/2"	64
2d	1"	480	10d	3"	48
3d	1 1/4"	320	16d	3 1/2"	29
4d	1 1/2"	195	20d	4"	22
5d	1 3/4"	160			

### SHEATHING NAILS

Size	Length	Approx. No. Per Pound
2d	1"	156
3d	1 1/4"	112
4d	1 1/2"	88
5d	1 3/4"	80
6d	2"	60

### STEM NAILS

Size	Length	Approx. No. Per Pound
4d	1 1/2"	50
5d	1 3/4"	45

### SLATING NAILS

Size	Length	Approx. No. Per Pound
3d	1 1/4"	150
4d	1 1/2"	135

## COPPER WIRE CLOTH

Market Grade  
Stock All 36" Wide

Mesh	Opening	Diam. Wire	Mesh	Opening	Diam. Wire
2	.437"	.063"	20	.034"	.016"
3	.279"	.054"	24	.026"	.015"
4	.203"	.047"	30	.021"	.012"
6	.132"	.035"	40	.015"	.010"
8	.097"	.028"	50	.011"	.009"
10	.072"	.028"	60	.0097"	.0075"
12	.058"	.025"	70	.0073"	.007"
14	.048"	.023"	80	.0063"	.0057"
16	.042"	.020"	90	.0059"	.005"
18	.038"	.017"	100	.0055"	.0045"

24", 30" and 48" widths also available from mill stock.

**COPPER AND BRONZE INSECT SCREEN CLOTH**

In 25, 50 and 100-Foot Rolls

Size of Mesh	Size of Wire
Nos. 14, 16 and 18	.0113"
No. 16 (Heavy Grade)	.015"
In Widths of	

18"	24"	30"	36"	42"	60"
20"	26"	32"	38"	48"	66"
22"	28"	34"	40"	54"	72"

**COPPER AND BRONZE WIRE CLOTH**

For Skylights, Ventilators, Etc.

In 100-Foot Rolls

Or Cut to Specific Lengths

In Sizes of

Widths: 24", 30", 36" and 48"

Meshes: Nos. 2, 3 and 4

For other wire cloth materials, see Pages 94 and 192.

**LEAD COATED COPPER SHEETS**

**Prompt Shipment from Mill**

Carried in Three Standard Sizes (See page 120)

**STANDARD COATING**

(12 to 15 Lbs. per 100 Sq. Ft.)

**HEAVY COATING**

(24 to 30 Lbs. per  
100 Sq. Ft.)

**EXTRA HEAVY COATING**

(40 to 50 Lbs. per  
100 Sq. Ft.)

Coated Both Sides

Furnished in

**STANDARD OR SPECIAL SIZE SHEETS**

**AND THICKNESSES**

*also*

**CAST LEAD LEADER HEADS**

*and*

**ORNAMENTAL STRAPS**

In Stock Designs

LEAD  
COATED

MINOR

# • ANACONDA COPPER



## COPPER PRODUCTS

Prompt Shipment from Mill



COLD ROLLED CRIMPED COPPER SHEET

COLD ROLLED CORRUGATED COPPER SHEET

SPRING BRUSH COPPER

ENGRAVERS' COPPER

ETCHING COPPER

SOFT COPPER SHEATHING

COPPER FOIL

EXTRA THIN COPPER SHEET

COPPER BOTTOMS AND FLATS

COLD ROLLED COPPER CIRCLES

ANNEALED COPPER BOILER (FLUE) FERRULES

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WHITEHEAD METAL PRODUCTS COMPANY, Inc.

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COLEMAN

COLEMAN

# **MONEL and NICKEL**

## **SECTION**



**Includes**

**MONEL**

**"R" MONEL**

**"K" MONEL**

**"KR" MONEL**

**"S" MONEL**

**"H" MONEL**

**NICKEL**

**"Z" NICKEL**

**"D" NICKEL**

**INCONEL**

**In All Commercial Forms**



*Rolling Mills of the International  
Nickel Company, Huntington, W. Va.*

NICKEL  
&  
MONEL

SPECIAL

# MONEL and NICKEL SECTION

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## CUTTING INFORMATION

Consistent with economical practice, we will cut stock sizes of Nickel and Monel to your particular requirements within commercial limits and tolerances.

### Shearing

We are equipped to shear Nickel and Monel Sheets up to 144" in length and 3/16" in thickness with a tolerance of 1/32" plus or minus. Any length sheet over 144" can also be sheared with a 1/32" plus or minus tolerance, in thicknesses up to 1/8". On sheets over 144", however, the width of the sheet left after cutting must not exceed 18". We can shear 1/4" to 1/2" wide in 5' lengths; wider than 1/2" up to 144" long.

For precision work, sheets should be sheared where possible 1/8" or 1/4" larger than required and machined to size by the customer.

We can cut Nickel and Monel Circles from 8" to 50" in diameter in thicknesses up to .078"; Circles 3" to 8" in diameter to .031" thickness.

### Cutting and Threading

We are equipped to cut all sizes of Nickel and Monel rod, tube and pipe. We can thread Nickel and Monel rods from 3/8" to 1 1/4" in diameter and Nickel and Monel pipe size tubing from 1/8" to 3".





# NICKEL

## and NICKEL ALLOYS

Monel, Nickel, Inconel and the special products listed below are a group of rustproof, corrosion resisting metals that are stronger than structural carbon steel and readily fabricated by all the usual methods, including hot and cold forming, machining, welding and soldering.

Each of the new alloys has been developed through research by the International Nickel Company to meet specific requirements of industry and the general public.

Because they are rustproof and resistant to many corrosives, these metals are used in a wide variety of chemical equipment to protect the purity of the product, to obtain long life and to minimize maintenance expense. In mechanical equipment they are used to obtain more dependable operation and to eliminate troubles resulting from rust and corrosion, particularly in parts that must have good strength, stiffness and resistance to wear. In appearance applications they are used to obtain durability and attractiveness. Since their mechanical strength is not much affected by extremes in temperatures, they are used for such purposes as quick freezing equipment and for high pressure steam valves.

Users who require aid in choosing the correct material for a job in fabricating equipment, may obtain engineering assistance without charge from our Technical Service Division.

### MONEL

**CORROSION RESISTANT—STRONG—RUSTPROOF  
FOR GENERAL PURPOSES**

Monel is a nickel-copper alloy of high nickel content which is commercially the most important of the nickel-copper alloys. It is unique in that the nickel and copper of which it is composed are refined from the ore without separation. For this reason, Monel has been called a natural alloy. With its combination of high strength, ductility and excellent resistance to corrosion, it is a "general purpose" rather than a "specialized" alloy. Because it is a simple, homogeneous alloy, it retains its essential characteristics through manufacturing and fabrication operations and throughout its service life. Cold-worked, welded and cast forms behave substantially the same under corrosive conditions.



## INCO METALS •

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### "K" MONEL

#### EXTRA STRENGTH AND HARDNESS (through heat treatment)

"K" Monel is a corrosion resistant wrought alloy of nickel, copper and aluminum that can be age hardened by heat treatment. It possesses the excellent corrosion resistance which is characteristic of Monel, together with the added advantage of greater strength and hardness. "K" Monel has the higher strength ordinarily found only in heat treated alloy steels, and not offered by other corrosion resistant alloys available at comparable price levels. "K" Monel is non-magnetic.

Before heat treatment for hardness, it is readily formed by bending, drawing, machining, etc., and may be joined by welding.

### "KR" MONEL

#### MACHINING QUALITY "K" MONEL

"KR" Monel is a heat treatable alloy similar to "K" Monel in composition, strength and corrosion resistance, but with improved machinability. It is suitable for the production of corrosion resisting parts that are hardened after machining.

"KR" Monel is supplied only in the form of rods.

### "R" MONEL

#### FOR HIGH SPEED MACHINING

"R" Monel has the free cutting qualities required for high speed automatic machine work and at the same time provides the corrosion resistance and immunity to rust inherent in Monel.

Its strength is equal to the best available steel screw stock and it may be readily fabricated by cold forming operations such as cold heading and bending. It is available only in rod form.

### "H" MONEL — "S" MONEL

#### SUPERIOR CASTING ALLOYS

"H" and "S" Monel are Monel casting alloys containing Silicon ("H", 3%; "S", 4%) of high strength and hardness for severely abrasive or erosive conditions. "S" Monel is the harder of the two, and in addition has excellent non-galling properties at either normal or elevated temperatures. "H" Monel, although not non-galling itself, will work well in combination with "S" Monel to take advantage of its non-galling properties. Both alloys possess the same general resistance to corrosion as regular cast Monel.

### NICKEL

#### For Processing Pure Products

Wrought Nickel is commercially pure Nickel, a metal that combines high strength with excellent corrosion resistance. It responds readily to all commercial fabricating practices and is not affected adversely by cold working, welding, casting





or heating. Its mechanical properties are similar to those of mild steel. It retains its strength to an excellent degree at high temperatures, and its ductility and toughness, as well as strength, at sub-zero temperatures.

Nickel has many applications in the food and chemical industries where corrosion resistance and the protection of purity, color, odor and flavor is essential.

## "Z" NICKEL

### Heat Treatable Nickel

"Z" Nickel is a hardenable alloy. Its general resistance to corrosion is of the same order as that of Nickel and its choice over the latter for any application should be based primarily on mechanical requirements. "Z" Nickel can be work hardened, and hardens much more rapidly than Nickel. It is, therefore, much harder and stronger than Nickel, even prior to hardening heat treatment. The heat treatment is of the precipitation hardening type and is carried out at temperatures below that required for soft annealing. Heat treatment for hardness does not destroy the effect of cold work, but supplements it to produce properties which are unusually high for a material of such excellent corrosion resistance.

"Z" Nickel, like "K" Monel, may be hardened after fabrication. In the unhardened condition, it may be bent, drawn, machined and stamped almost as easily as Nickel.

## "D" NICKEL

### HIGH TEMPERATURE RESISTANT

"D" Nickel is a Nickel alloy containing approximately  $4\frac{1}{2}\%$  of Manganese, for use in high temperature service. The Manganese provides improved resistance to attack by sulfur compounds at elevated temperatures, especially under oxidizing conditions.

## INCONEL

### HEAT RESISTANT

### CORROSION RESISTANT

Inconel is a corrosion-resistant alloy containing 79.5% Nickel, 13% Chromium and 6.5% Iron. Nickel contributes in high degree to its resistance to corrosion by many inorganic and organic compounds throughout wide ranges of acidity and alkalinity. Chromium confers ability to remain bright under exposure to sulfur compounds in the atmosphere or in other corrosives; it also provides resistance to oxidizing atmospheres at elevated temperature, and to oxidizing conditions in corrosive solutions.

Inconel thus combines the corrosion resistance, strength and great toughness of Nickel, with the extra resistance to heat and oxidation contributed by Chromium.

Inconel was originally developed to resist corrosion and tarnishing by foods, especially dairy products and fruit juices, and for such uses it is admirably suited.





# INCO METALS •

## Ranges of Standard Products

Form and Condition	Tensile Strength 1000 psi	Yield Strength (0.2% Offset) 1000 psi	Elongation in 2 in. per cent	Izod Impact Value ft. lb.	Brinell Hardness (3000 kg.)
<b>MONEL</b>					
<b>Rod and Bar</b>					
<b>Cold Drawn</b>					
Annealed .....	70-85	30-40	50-35	120-90	120-160
As Drawn .....	85-125	60-95	35-15	115-75	160-220
Hot Rolled .....	80-95	40-65	45-30	120-100	130-170
Forged .....	80-110	40-85	40-20	115-75	130-220
<b>Plate, Hot Rolled</b>					
As Rolled .....	80-110	40-90	45-20		150-220
Annealed .....	70-85	30-45	50-30		120-160
<b>Sheet and Strip</b>					
No. 35 Sheet .....	78-85	45-65	40-20		74-89*
Standard Cold Rolled Sheet .....	65-80	25-35	40-20		60-68*
<b>Special Cold Rolled</b>					
Annealed Sheet and Strip .....	65-80	25-35	40-20		60-68*
Hard Sheet .....	100-120	90-110	8-2		98 min.*
Full-Hard Strip .....	100-130	90-115	15-2		98 min.*
<b>Wire, Cold Drawn (under 1/2 in.)</b>					
Annealed .....	70-85	30-40	50-35		
No. 1 Temper .....	95-110	65-85	10-5		
Regular .....	110-140		8-4		
Spring .....	140-170		10-2		
<b>Tubing, Cold Drawn</b>					
Annealed .....	65-85	25-35	35-20		
As Drawn .....	90-105	60-75	20-10		
<b>"R" MONEL</b>					
<b>Rod</b>					
<b>Cold Drawn</b>					
Annealed .....	70-85	25-40	50-35		110-140
As Drawn .....	80-115	50-100	35-5		150-230
<b>Hot Rolled</b>					
Annealed .....	70-85	25-40	50-35		110-140
As Rolled .....	75-90	35-60	45-25		130-170
<b>Wire, Cold Drawn (under 1/8 in.)</b>					
Annealed .....	70-85	25-40	50-35		
Regular .....	90-140	75-130	15-4		
<b>"K" MONEL</b>					
<b>Rod</b>					
<b>Cold Drawn</b>					
Annealed .....	90-110	50-70	45-35	140-180	75-90*
Annealed Age Hardened .....	130-150	90-110	30-20	240-260	21-25
As Drawn .....	100-125	70-100	35-20	175-250	8-23
As Drawn Age Hardened .....	140-170	100-130	30-15	260-320	25-33

\*Rockwell B Scale

(Continued on next page)



## Ranges of Standard Products—Continued

Form and Condition	Tensile Strength 1000 psi	Yield Strength (0.2% Offset) 1000 psi	Elongation in 2 in. per cent	Brinell Hardness (3000 kg.)	Rockwell Hardness (C. Scale)
<b>"K" MONEL (Cont.)</b>					
<b>Hot Rolled</b>					
As Rolled	90-110	40-60	45-35	140-180	75-90*
As Rolled Age Hardened	135-160	100-120	30-20	260-300	25-31
As Forged	90-120	50-80	40-25	140-240	75-100*
As Forged Age Hardened	135-165	100-125	30-20	260-310	25-32
<b>Strip, Cold Rolled</b>					
Soft as Rolled	90-105	50-65	45-30		75-85*
Soft Age Hardened	130-150	90-110	25-10		20-30
Half Hard as Rolled	125-145	85-105	20-10		15-28
Half Hard Age Hardened	150-180	110-130	15-5		28-35
Hard as Rolled	145-165	105-120	8-2		25-32
Hard Age Hardened	170-200	125-145	10-2		33-40
<b>Wire, Cold Drawn (under 1/2 in.)</b>					
Annealed	90-110	50-70	45-35		
Annealed Age Hardened	130-150	90-110	30-15		
Spring	145-175		4-2		
Spring Age Hardened	170-200		8-3		
<b>"KR" MONEL</b>					
<b>Rod</b>					
Cold Drawn	100-125	70-100	35-15	175-250	
Cold Drawn Age Hardened	140-170	100-130	30-15	260-320	
Hot Rolled	90-120	40-85	45-30	140-225	
Hot Rolled Age Hardened	135-160	90-120	30-20	260-300	
<b>NICKEL</b>					
<b>Rod and Bar</b>					
<b>Cold Drawn</b>				<b>Izod Impact Value ft. lb.</b>	<b>Brinell Hardness (3000 kg.)</b>
Annealed	65-85	20-30	50-30	89-61	100-150
As Drawn	80-115	60-90	35-15		140-200
Hot Rolled	65-80	20-30	45-35	105-90	100-140
Forged	70-105	20-80	40-20		110-200
<b>Plate, Hot Rolled</b>					
As Rolled	70-100	20-75	45-30		100-200
Annealed	65-80	15-30	50-35		100-140
<b>Sheet and Strip</b>					
Standard Cold Rolled Sheet	60-80	15-30	45-35		50-75*
Special Cold Rolled Sheet and Strip					
Annealed	60-80	15-30	45-35		50-75*
Hard Sheet	100-115	90-105	23-2		95 min.*
Full Hard Strip	100-130	90-115	23-2		95 min.*

\* Rockwell B Scale

(Continued on next page)



# INCO METALS •

## Ranges of Standard Products—Continued

Form and Condition	Tensile Strength 1000 psi	Yield Strength (0.2% Offset) 1000 psi	Elongation in 2 in. per cent	Izod Impact Value ft. lb.	Brinell Hardness (3000 kg.)
<b>NICKEL (Cont.)</b>					
<b>Wire, Cold Drawn (under 1/2 in.)</b>					
Annealed.....	65- 85	15- 30	50-30		
No. 1 Temper.....	90-105		10- 5		
Regular.....	105-140		8- 4		
Spring.....	135-165		10- 2		
<b>Tubing, Cold Drawn</b>					
Annealed.....	60- 75	15- 25	45-35		100-130
As Drawn.....	80- 95	50- 60	25-15		140-170
<b>Rod and Bar Cold Drawn "D" NICKEL</b>					
Annealed.....	80- 90	30- 40	50-40		120-150
Hot Rolled					
Annealed.....	85- 95	35- 45	45-35		140-170
<b>Rod "Z" NICKEL</b>					
<b>Cold Drawn</b>				Brinell Hardness (3000 kg.)	Rockwell Hardness (C. Scale)
As Drawn.....	90-150	50-130	35-15	150-300	0- 31
As Drawn Age Hardened.....	160-190	120-150	20- 7	300-380	31- 40
<b>Hot Rolled</b>					
As Rolled.....	90-120	35- 65	40-25	150-225	
As Rolled Age Hardened.....	160-180	120-140	20-10	300-350	
<b>Strip, Cold Rolled</b>					
Soft.....	90-120		50-25		70- 90*
Soft Age Hardened.....	150-190		20-10		30- 40
Half Hard.....	130-155		15- 3		25- 34
Half Hard Age Hardened.....	160-210		20- 7		33- 42
Full Hard.....	155-190		10- 2		30- 40
Full Hard Age Hardened.....	180-230		15- 5		36- 46
<b>Wire, Cold Drawn (under 1/2 in.)</b>					
Annealed.....	90-120		50-25		
Annealed Age Hardened.....	160-180		15- 7		
Spring.....	160-200		5- 2		
Spring Age Hardened.....	200-240		10- 5		
<b>INCONEL</b>					
<b>Rod and Bar Cold Drawn</b>				Izod Impact Value ft. lb.	Brinell Hardness (3000 kg.)
Annealed.....	80- 95	25- 40	55-35	over 120	130-170
As Drawn.....	95-130	70-105	30-15	100- 70	150-250
<b>Hot Rolled</b>					
As Rolled.....	85-120	35- 90	45-30	120-100	120-240
Annealed.....	80- 95	25- 40	55-35	over 120	130-170
Forged.....	85-120	35- 90	45-20	120-100	120-240

\*Rockwell B Scale

(Continued on next page)





## Ranges of Standard Products—Continued

Form and Condition	Tensile Strength 1000 psi	Yield Strength (0.2% Offset) 1000 psi	Elongation in 2 in. per cent	Izod Impact Value ft. lb.	Brinell Hardness (3000 kg.)
INCONEL, (Cont.)					
Sheet and Strip					
Standard Cold Rolled Sheet	80-95	30-40	55-35		
Special Cold Rolled Sheet					
Annealed	80-95	30-40	55-35		
Hard	125-150	90-120	17-2		
Cold Rolled Strip					
Annealed	80-95	30-40	55-35		
Full Hard	145-170		10-2		
Wire, Cold Drawn (under 1/2 in.)					
Annealed	80-105	25-40	55-35		
Regular	105-140				
Spring	165-185		10-2		
Tubing, Cold Drawn					
Annealed	80-100	30-40	50-35		65-75*
As Drawn	110-160	80-140	25-2		100-110*
* Rockwell B Scale					

### CASTINGS

Monel	65-80	33-40	45-25	80-65	125-150
"H" Monel	70-90	45-65	20-10	45-35	175-250
"S" Monel	90-115	70-90	3-1	5-1	275-350
Nickel	55-70	20-30	30-15	90-65	100-130
Inconel	85	50	10		200

## Products and Forms Available

PRODUCTS	Standard C.R. Sheet	Special C.R. Sheet	C.R. & H.R. Products																		
	No. 35 Sheet	C.R. Strip	H.R. Rounds	H.R. Hexagons	H.R. Squares	H.R. Flats	H.R. Half Rounds	H.R. Half Ovals	Forged Billets	C.D. Rounds	C.D. Hexagons	C.D. Squares	C.D. Flats	Seamless Tube & Pipe	H.R. Plate	H.R. Angles	C.R. Angles	Welding Wire	Cast Fittings	Castings	
*Monel . . . . .	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
**“R” Monel . . . . .				x	x	x					x	x	x								
**“K” Monel . . . . .			x	x	x	x	x				x										
Nickel . . . . .	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
**“Z” Nickel . . . . .			x	x	x	x	x				x										
“D” Nickel . . . . .				x	x	x	x					x	x	x	x						
*Inconel . . . . .	x	x		x	x	x	x				x				x	x			x	x	
**“S” Monel . . . . .																					

\* Registered trade marks of International Nickel

Remelting Metals for Castings

Monel Block

Monel Shot

Everbrite Block



# INCO METALS •

## Physical Constants of Various Metals

Metal	Pounds per Cu. In.	Melting Point ° F.	Specific Heat	Heat Expansion per ° F.	Heat Cond'y % of Cu.	Elect. Cond'y % of Cu.
Monel .....	0.319	2370-2460	.127*	.0000078*	7.	4.
"R" Monel ..	0.319	2370-2460	.127*	.0000078*	7.	4.
Nickel .....	0.321	2615-2635	.130*	.0000072*	16.	16.
Inconel .....	0.307	2540	.109	.0000064*	4.	2.
"K" Monel ..	0.306	2400-2460	.127*	.0000078*	5.	3.
"Z" Nickel ..	0.316	2640	.130*	.0000072*	16.	12.

\* 80°-212° F.

## Nominal Compositions

Individual analysis, of course, will show variations from these nominal compositions, which are presented for information purposes only. They should not be used for specifications.

METAL	Nickel %*	Copper %	Iron %	Manganese %	Silicon %	Carbon %	Sulfur %	Aluminum %	Chromium %
<b>Rolled Metals</b>									
Monel .....	67.	30.	1.4	1.	.1	.15	.01	...	...
"R" Monel ..	67.	30.	1.7	1.1	.05	.1	.035	...	...
"K" Monel ....	66.	29.	.9	.4	.25	.15	.005	2.75	...
Nickel .....	99.4	.1	.15	.2	.05	.1	.005	...	...
"D" Nickel ....	95.2	.05	.15	4.5	.05	.1	.005	...	...
"Z" Nickel ....	98.	...	...	...	...	...	...	...	...
Inconel .....	79.5	.2	6.5	.25	.25	.08	.015	...	13.
<b>Castings</b>									
Monel .....	67.	29.	1.5	.9	1.25	.3	...	...	...
"H" Monel ....	65.	29.5	1.5	.9	3.	.1	...	...	...
"S" Monel ....	63.	30.	2.	.9	4.	.1	...	...	...
Nickel .....	96.7	.3	.5	.5	1.5	.5	...	...	...
Inconel .....	78.5	.25	6.	.9	.6	.25	...	...	13.5
<b>Foundry Metals</b>									
Monel Blocks ..	68.	29.5	1.5	.5	.3	.15	.025	...	...
Monel Shot ....	67.	29.	1.75	.75	1.25	.2	.01	...	...
Everbrite .....	31.	62.	6.75	.15	.2	.05	...	...	...

\* Includes small amount of Cobalt.

Where it is desired to specify Monel without using the proprietary name or if an analysis specification is required the analysis given in U. S. Navy Specification 46M7f may be used.



## STANDARD COLD ROLLED MONEL SHEETS

### DESCRIPTION OF STANDARD COLD ROLLED MONEL SHEET

The Standard Cold Rolled Sheet is a cold rolled, soft, commercially flat sheet. It is used where appearance and smoothness of surface are important; can be used in moderate drawing and all bending operations, including lock seaming, and is readily soldered and welded.

#### Plain—Not Polished

Thickness U. S. S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness U. S. S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 26 (.018")	24"x	96"	13.76 lbs.	No. 22 (.031")	30"x	120"	36.00 lbs.
No. 26 (.018")	30"x	96"	17.20 lbs.	No. 22 (.031")	36"x	72"	25.92 lbs.
No. 26 (.018")	30"x	120"	21.50 lbs.	No. 22 (.031")	36"x	96"	34.56 lbs.
No. 26 (.018")	36"x	72"	15.48 lbs.	No. 22 (.031")	36"x	120"	43.20 lbs.
No. 26 (.018")	36"x	96"	20.64 lbs.	†No. 22 (.031")	40"x	120"	48.00 lbs.
No. 26 (.018")	36"x	120"	25.80 lbs.	No. 22 (.031")	42"x	96"	40.32 lbs.
No. 25 (.021")	24"x	96"	16.16 lbs.	No. 22 (.031")	48"x	72"	34.56 lbs.
No. 25 (.021")	30"x	96"	20.20 lbs.	No. 22 (.031")	48"x	84"	40.32 lbs.
No. 25 (.021")	30"x	120"	25.25 lbs.	No. 22 (.031")	48"x	96"	46.08 lbs.
No. 25 (.021")	36"x	72"	18.18 lbs.	No. 22 (.031")	48"x	120"	57.60 lbs.
No. 25 (.021")	36"x	96"	24.24 lbs.	*No. 21 (.034")	36"x	96"	37.92 lbs.
No. 25 (.021")	36"x	120"	30.30 lbs.	No. 20 (.037")	24"x	96"	27.68 lbs.
No. 24 (.025")	24"x	96"	18.40 lbs.	No. 20 (.037")	30"x	72"	25.95 lbs.
No. 24 (.025")	24"x	120"	23.00 lbs.	No. 20 (.037")	30"x	84"	30.28 lbs.
No. 24 (.025")	30"x	72"	17.25 lbs.	No. 20 (.037")	30"x	96"	34.60 lbs.
No. 24 (.025")	30"x	96"	23.00 lbs.	†No. 20 (.037")	30"x	120"	43.25 lbs.
No. 24 (.025")	30"x	120"	28.75 lbs.	No. 20 (.037")	36"x	72"	31.14 lbs.
No. 24 (.025")	36"x	72"	20.70 lbs.	No. 20 (.037")	36"x	84"	36.33 lbs.
No. 24 (.025")	36"x	84"	24.15 lbs.	No. 20 (.037")	36"x	96"	41.52 lbs.
No. 24 (.025")	36"x	96"	27.60 lbs.	†No. 20 (.037")	36"x	120"	51.90 lbs.
No. 24 (.025")	36"x	120"	34.50 lbs.	†No. 20 (.037")	36"x	144"	62.28 lbs.
No. 24 (.025")	42"x	120"	40.25 lbs.	No. 20 (.037")	44"x	72"	38.64 lbs.
No. 24 (.025")	44"x	84"	29.52 lbs.	No. 20 (.037")	48"x	72"	41.52 lbs.
No. 24 (.025")	44"x	96"	33.74 lbs.	No. 20 (.037")	48"x	84"	48.44 lbs.
No. 24 (.025")	44"x	120"	42.17 lbs.	No. 20 (.037")	48"x	120"	69.20 lbs.
No. 23 (.028")	36"x	96"	31.20 lbs.	No. 20 (.037")	48"x	144"	83.04 lbs.
No. 22 (.031")	24"x	96"	23.04 lbs.	No. 19 (.043")	30"x	96"	40.40 lbs.
No. 22 (.031")	30"x	60"	18.00 lbs.	No. 19 (.043")	36"x	96"	48.48 lbs.
No. 22 (.031")	30"x	84"	25.20 lbs.	No. 19 (.043")	48"x	120"	80.40 lbs.
No. 22 (.031")	30"x	96"	28.80 lbs.	No. 18 (.050")	30"x	96"	46.00 lbs.

For weight per square foot see pages 221 through 224.

\* Carried in our Philadelphia Warehouse only.

† Carried in our Buffalo Warehouse only.

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# INCO MONEL •

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## STANDARD COLD ROLLED MONEL SHEETS (Cont.)

Thickness U. S. S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness U. S. S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 18 (.050")	36"	x 96"	55.20 lbs.	No. 13 (.093")	36"	x 96"	103.68 lbs.
No. 18 (.050")	36"	x 120"	69.00 lbs.	No. 13 (.093")	48"	x 120"	172.80 lbs.
No. 18 (.050")	44"	x 120"	84.34 lbs.	No. 12 (.109")	30"	x 96"	100.80 lbs.
No. 18 (.050")	48"	x 120"	92.00 lbs.	No. 12 (.109")	36"	x 96"	120.96 lbs.
No. 18 (.050")	48"	x 144"	110.40 lbs.	No. 12 (.109")	48"	x 120"	201.60 lbs.
No. 16 (.062")	24"	x 96"	46.03 lbs.	No. 12 (.109")	48"	x 144"	241.92 lbs.
No. 16 (.062")	30"	x 96"	57.60 lbs.	No. 11 (.125")	24"	x 96"	92.16 lbs.
No. 16 (.062")	36"	x 96"	69.12 lbs.	No. 11 (.125")	30"	x 96"	115.20 lbs.
No. 16 (.062")	36"	x 120"	86.10 lbs.	No. 11 (.125")	36"	x 96"	138.24 lbs.
No. 16 (.062")	48"	x 120"	115.20 lbs.	No. 11 (.125")	48"	x 120"	230.40 lbs.
No. 16 (.062")	48"	x 144"	138.24 lbs.	No. 11 (.125")	48"	x 144"	276.48 lbs.
No. 14 (.078")	30"	x 96"	71.80 lbs.	No. 9 (.156")	40"	x 84"	163.80 lbs.
No. 14 (.078")	36"	x 96"	86.16 lbs.	No. 7 (.187")	36"	x 72"	155.52 lbs.
No. 14 (.078")	48"	x 120"	144.00 lbs.	No. 7 (.187")	36"	x 96"	207.36 lbs.
No. 14 (.078")	48"	x 144"	172.32 lbs.	No. 7 (.187")	44"	x 84"	221.25 lbs.
No. 13 (.093")	24"	x 96"	69.12 lbs.	No. 7 (.187")	48"	x 96"	276.48 lbs.
No. 13 (.093")	30"	x 96"	86.40 lbs.	No. 3 (.250")	36"	x 72"	207.36 lbs.

## HOT ROLLED MONEL SHEET NO. 2AZ FOR ROOFING

Thickness U. S. S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness U. S. S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 25 (.021")	24"	x 96"	16.16 lbs.	No. 24 (.025")	30"	x 96"	23.00 lbs.
No. 25 (.021")	30"	x 96"	20.20 lbs.	No. 24 (.025")	36"	x 96"	27.60 lbs.
No. 25 (.021")	36"	x 96"	24.24 lbs.				

## SPECIAL COLD ROLLED MONEL SHEETS

### Description of Special Cold Rolled Sheet

Special Cold Rolled sheet can be obtained in various tempers. This quality sheet is recommended for deep drawing applications.

The following finishes can be secured:

- (a) Plain.
- (b) #5 high polish. Available in soft temper only and on one side only.
- (c) #9 or #10 satin finish on one or both sides, in soft temper only.

Available for Prompt Shipment

Thicknesses—.018" to .250"

Widths— 24" 30" 36" 42" 48"

Lengths— 72" 96" 120" 144"

For weight per square foot see pages 221 through 224.



## No. 35 MONEL SHEET

No. 35 Monel sheet is a tempered commercially flat sheet with satin finish on one side.

The amount of cold rolling has been standardized to obtain a combination of hardness, flatness and workability. In gauges heavier than .093", softer sheets are supplied to maintain workability. In .018" and sizes over 36" x 96" in .021" softer sheets are supplied to maintain flatness.

No. 35 Monel sheet can be used in all bending operations, including lock seaming and is readily soldered and welded. It is not recommended for spinning or drawing operations.

It is obtainable only as described above—satin finish and standardized quality.

### INCO NO. 35 MONEL SHEET

Thickness U. S. S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness U. S. S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 26 (.018")	24"	96"	13.76 lbs.	No. 22 (.031")	48"x120"		57.60 lbs.
No. 26 (.018")	30"x	96"	17.20 lbs.	No. 20 (.037")	24"x	96"	27.68 lbs.
No. 26 (.018")	36"x	96"	20.64 lbs.	No. 20 (.037")	30"x	96"	34.60 lbs.
No. 25 (.021")	24"x	96"	16.16 lbs.	No. 20 (.037")	30"x120"		43.25 lbs.
No. 25 (.021")	30"x	96"	20.20 lbs.	No. 20 (.037")	36"x	96"	41.52 lbs.
No. 25 (.021")	30"x120"		25.25 lbs.	No. 20 (.037")	36"x120"		51.90 lbs.
No. 25 (.021")	36"x	96"	24.24 lbs.	No. 20 (.037")	40"x120"		57.68 lbs.
No. 25 (.021")	36"x120"		30.30 lbs.	No. 20 (.037")	44"x	96"	50.76 lbs.
No. 24 (.025")	24"x	96"	18.40 lbs.	No. 20 (.037")	48"x	96"	55.36 lbs.
No. 24 (.025")	30"x	96"	23.00 lbs.	No. 20 (.037")	48"x120"		69.20 lbs.
No. 24 (.025")	30"x120"		28.75 lbs.	No. 19 (.043")	30"x	96"	40.40 lbs.
No. 24 (.025")	36"x	72"	20.70 lbs.	No. 19 (.043")	36"x	96"	48.48 lbs.
No. 24 (.025")	36"x	84"	24.15 lbs.	No. 19 (.043")	36"x120"		60.60 lbs.
No. 24 (.025")	36"x	96"	27.60 lbs.	No. 19 (.043")	48"x	96"	64.64 lbs.
No. 24 (.025")	36"x120"		34.50 lbs.	No. 18 (.050")	24"x	96"	36.80 lbs.
No. 24 (.025")	44"x	84"	29.52 lbs.	No. 18 (.050")	30"x	96"	46.00 lbs.
No. 24 (.025")	44"x	96"	33.74 lbs.	No. 18 (.050")	30"x120"		57.50 lbs.
No. 22 (.031")	24"x	96"	23.04 lbs.	No. 18 (.050")	32"x	96"	49.08 lbs.
No. 22 (.031")	30"x	84"	25.20 lbs.	No. 18 (.050")	36"x	72"	41.40 lbs.
No. 22 (.031")	30"x	96"	28.80 lbs.	No. 18 (.050")	36"x	96"	55.20 lbs.
No. 22 (.031")	30"x120"		36.00 lbs.	No. 18 (.050")	36"x120"		69.00 lbs.
No. 22 (.031")	36"x	96"	34.56 lbs.	No. 18 (.050")	40"x	96"	61.34 lbs.
No. 22 (.031")	36"x120"		43.20 lbs.	No. 18 (.050")	42"x	96"	64.40 lbs.
No. 22 (.031")	40"x	96"	38.40 lbs.	No. 18 (.050")	42"x120"		80.50 lbs.
No. 22 (.031")	40"x120"		48.01 lbs.	No. 18 (.050")	44"x120"		84.34 lbs.
No. 22 (.031")	42"x	96"	40.32 lbs.	No. 18 (.050")	48"x	96"	73.60 lbs.
No. 22 (.031")	48"x	96"	46.08 lbs.	No. 18 (.050")	48"x120"		92.00 lbs.

For weight per square foot see pages 221 through 224.

(Continued on next page)





# INCO MONEL •

## INCO NO. 35 MONEL SHEET (Cont.)

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Thickness U. S. S. Gauge	Width	Length	Appr. Wt Per Sheet	Thickness U. S. S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 16 (.062")	24"	72"	34.56 lbs.	No. 14 (.078")	42"x120"		126.00 lbs.
No. 16 (.062")	24"	96"	46.08 lbs.	No. 14 (.078")	44"x 84"		92.41 lbs.
No. 16 (.062")	24"x120"		57.60 lbs.	No. 14 (.078")	48"x 72"		86.40 lbs.
No. 16 (.062")	28"x 84"		47.06 lbs.	No. 14 (.078")	48"x 96"		115.20 lbs.
No. 16 (.062")	28"x 96"		53.77 lbs.	No. 14 (.078")	48"x120"		144.00 lbs.
No. 16 (.062")	30"x 84"		50.40 lbs.	No. 13 (.093")	30"x 96"		86.40 lbs.
No. 16 (.062")	30"x 96"		57.60 lbs.	No. 13 (.093")	30"x120"		108.00 lbs.
No. 16 (.062")	30"x108"		64.80 lbs.	No. 13 (.093")	36"x 96"		103.68 lbs.
No. 16 (.062")	30"x120"		72.00 lbs.	No. 13 (.093")	36"x120"		129.60 lbs.
No. 16 (.062")	36"x 72"		51.84 lbs.	No. 13 (.093")	48"x 96"		138.24 lbs.
No. 16 (.062")	36"x 84"		60.48 lbs.	No. 13 (.093")	48"x120"		172.80 lbs.
No. 16 (.062")	36"x 96"		69.12 lbs.	No. 12 (.109")	24"x 96"		80.64 lbs.
No. 16 (.062")	36"x108"		77.76 lbs.	No. 12 (.109")	30"x 96"		100.80 lbs.
No. 16 (.062")	36"x120"		86.40 lbs.	No. 12 (.109")	30"x120"		126.00 lbs.
No. 16 (.062")	38"x 96"		72.98 lbs.	No. 12 (.109")	36"x 72"		90.72 lbs.
No. 16 (.062")	38"x120"		91.21 lbs.	No. 12 (.109")	36"x 84"		105.84 lbs.
No. 16 (.062")	40"x 84"		67.22 lbs.	No. 12 (.109")	36"x 96"		120.96 lbs.
No. 16 (.062")	40"x 96"		76.81 lbs.	No. 12 (.109")	36"x120"		151.20 lbs.
No. 16 (.062")	42"x 96"		80.64 lbs.	No. 12 (.109")	40"x 96"		134.42 lbs.
No. 16 (.062")	42"x120"		100.80 lbs.	No. 12 (.109")	42"x120"		176.40 lbs.
No. 16 (.062")	44"x 96"		84.50 lbs.	No. 12 (.109")	48"x120"		201.60 lbs.
No. 16 (.062")	44"x120"		105.61 lbs.	No. 11 (.125")	24"x 96"		92.16 lbs.
No. 16 (.062")	48"x 72"		69.12 lbs.	No. 11 (.125")	30"x 72"		86.40 lbs.
No. 16 (.062")	48"x 96"		92.16 lbs.	No. 11 (.125")	30"x 96"		115.20 lbs.
No. 16 (.062")	48"x108"		103.68 lbs.	No. 11 (.125")	30"x120"		144.00 lbs.
No. 16 (.062")	48"x120"		115.20 lbs.	No. 11 (.125")	36"x 72"		103.68 lbs.
No. 15 (.070")	42"x 96"		90.72 lbs.	No. 11 (.125")	36"x 84"		120.96 lbs.
No. 15 (.070")	48"x120"		129.60 lbs.	No. 11 (.125")	36"x 96"		138.24 lbs.
No. 14 (.078")	24"x 96"		57.60 lbs.	No. 11 (.125")	36"x120"		172.80 lbs.
No. 14 (.078")	30"x 84"		63.00 lbs.	No. 11 (.125")	40"x 96"		153.62 lbs.
No. 14 (.078")	30"x 96"		72.00 lbs.	No. 11 (.125")	42"x 96"		161.28 lbs.
No. 14 (.078")	30"x120"		90.00 lbs.	No. 11 (.125")	48"x 72"		138.24 lbs.
No. 14 (.078")	36"x 72"		64.80 lbs.	No. 11 (.125")	48"x 96"		184.32 lbs.
No. 14 (.078")	36"x 96"		86.40 lbs.	No. 11 (.125")	48"x120"		230.40 lbs.
No. 14 (.078")	36"x120"		108.00 lbs.	No. 10 (.140")	30"x120"		162.00 lbs.
No. 14 (.078")	40"x 96"		96.01 lbs.	No. 10 (.140")	36"x 96"		155.52 lbs.
No. 14 (.078")	40"x120"		120.02 lbs.	No. 10 (.140")	48"x 96"		207.36 lbs.
No. 14 (.078")	42"x 96"		100.80 lbs.	No. 10 (.140")	48"x120"		259.20 lbs.

For weight per square foot see pages 221 through 224.





## COLD ROLLED MONEL STRIP

Shipment from Mill

Thicknesses — .001" to .250" Incl.

Widths —  $\frac{3}{32}$ " to 18" Incl.

## HOT ROLLED MONEL PLATE

Shipment from Mill

Thicknesses	Widths	Lengths
$\frac{1}{4}$ " to 2" Incl.	10" to 160" Incl.	to 480" Incl.

## ASSEMBLING PARTS

Accessories for use with Monel Sheets will be found on the following pages:

Machine Screws—Pages 183, 184.	Escutcheon Pins—Page 188.
Finishing Washers—Page 184.	Wire Nails—Page 191.
Sheet Metal Screws—Page 184.	Welding Rods—Pages 197, 198.
Wood Screws—Page 185.	New "Hyro" OX Sheet Metal Punch—Page 218.

## ROUND HOT ROLLED MONEL RODS

### Regular Monel

In 6 to 18 Foot Lengths

Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot
$\frac{1}{4}$ "	.190 lbs.	$1\frac{1}{8}$ "	3.853 lbs.	$2\frac{3}{8}$ "	17.171 lbs.
$\frac{5}{16}$ "	.297 lbs.	$1\frac{3}{16}$ "	4.293 lbs.	$2\frac{1}{2}$ "	19.027 lbs.
$\frac{3}{8}$ "	.428 lbs.	$1\frac{1}{4}$ "	4.756 lbs.	$2\frac{5}{8}$ "	20.977 lbs.
$\frac{7}{16}$ "	.583 lbs.	$1\frac{5}{16}$ "	5.244 lbs.	$2\frac{3}{4}$ "	23.022 lbs.
$\frac{1}{2}$ "	.761 lbs.	$1\frac{3}{8}$ "	5.756 lbs.	$2\frac{7}{8}$ "	25.162 lbs.
$\frac{9}{16}$ "	.963 lbs.	$1\frac{7}{16}$ "	6.291 lbs.	3"	27.399 lbs.
$\frac{5}{8}$ "	1.189 lbs.	$1\frac{1}{2}$ "	6.849 lbs.	$3\frac{1}{8}$ "	29.777 lbs.
$1\frac{1}{16}$ "	1.439 lbs.	$1\frac{9}{16}$ "	7.432 lbs.	$3\frac{1}{4}$ "	32.155 lbs.
$\frac{3}{4}$ "	1.712 lbs.	$1\frac{5}{8}$ "	8.039 lbs.	$3\frac{3}{8}$ "	34.833 lbs.
$1\frac{3}{16}$ "	2.010 lbs.	$1\frac{3}{4}$ "	9.321 lbs.	$3\frac{1}{2}$ "	37.291 lbs.
$\frac{7}{8}$ "	2.331 lbs.	$1\frac{7}{8}$ "	10.742 lbs.	$3\frac{3}{4}$ "	42.810 lbs.
$1\frac{5}{16}$ "	2.766 lbs.	2"	12.178 lbs.	4"	48.706 lbs.
1"	3.044 lbs.	$2\frac{1}{8}$ "	13.747 lbs.		
$1\frac{1}{16}$ "	3.436 lbs.	$2\frac{1}{4}$ "	15.411 lbs.		

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# INCO MONEL •

RODS

## HEXAGON HOT ROLLED MONEL RODS

### Regular Monel

In 6 to 18 Foot Lengths (Measured Across Flats)

Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot	Diameter	Appr. Wt. Per Foot
7/16"	.643 lbs.	7/8"	2.570 lbs.	1 3/8"	6.346 lbs.
1/2"	.839 lbs.	1 5/16"	2.940 lbs.	1 7/16"	6.943 lbs.
9/16"	1.062 lbs.	1"	3.356 lbs.	1 1/2"	7.551 lbs.
5/8"	1.311 lbs.	1 1/16"	3.788 lbs.	1 5/8"	8.863 lbs.
1 1/16"	1.586 lbs.	1 1/8"	4.248 lbs.	1 11/16"	9.558 lbs.
3/4"	1.887 lbs.	1 1/4"	5.243 lbs.	2"	13.426 lbs.

## SQUARE HOT ROLLED MONEL RODS

### Regular Monel

In 6 to 18 Foot Lengths (Measured Across Flats)

Dimensions	Appr. Wt. Per Foot	Dimensions	Appr. Wt. Per Foot	Dimensions	Appr. Wt. Per Foot
5/16" x 5/16"	.379 lbs.	5/8" x 5/8"	1.514 lbs.	1 1/8" x 1 1/8"	4.906 lbs.
3/8" x 3/8"	.545 lbs.	3/4" x 3/4"	2.180 lbs.	1 1/4" x 1 1/4"	6.056 lbs.
7/16" x 7/16"	.742 lbs.	7/8" x 7/8"	2.968 lbs.	1 1/2" x 1 1/2"	8.721 lbs.
1/2" x 1/2"	.969 lbs.	1" x 1"	3.876 lbs.	2" x 2"	15.504 lbs.

## MONEL WELDING RODS

Consult Welding and Brazing Section, Pages 197, 198.

## RECTANGULAR HOT ROLLED MONEL RODS

### Regular Monel

In 6 to 18 Foot Lengths

Dimensions	Appr. Wt. Per Foot	Dimensions	Appr. Wt. Per Foot	Dimensions	Appr. Wt. Per Foot
1/2" x 1/8"	.242 lbs.	1" x 1/8"	.484 lbs.	1 1/2" x 3/16"	1.090 lbs.
1/2" x 3/16"	.363 lbs.	1" x 3/16"	.726 lbs.	1 1/2" x 1/4"	1.453 lbs.
1/2" x 1/4"	.484 lbs.	1" x 1/4"	.969 lbs.	1 1/2" x 3/8"	2.180 lbs.
1/2" x 3/8"	.726 lbs.	1" x 5/16"	1.211 lbs.	1 1/2" x 1/2"	2.907 lbs.
5/8" x 1/8"	.302 lbs.	1" x 3/8"	1.453 lbs.	1 1/2" x 3/4"	4.366 lbs.
5/8" x 3/16"	.454 lbs.	1" x 1/2"	1.938 lbs.	1 3/4" x 1/8"	.847 lbs.
5/8" x 1/4"	.605 lbs.	1" x 5/8"	2.422 lbs.	1 3/4" x 1/4"	1.695 lbs.
3/4" x 1/8"	.363 lbs.	1" x 3/4"	2.907 lbs.	1 3/4" x 3/8"	2.543 lbs.
3/4" x 3/16"	.545 lbs.	1 1/4" x 1/8"	.605 lbs.	1 3/4" x 1/2"	3.391 lbs.
3/4" x 1/4"	.726 lbs.	1 1/4" x 3/16"	.908 lbs.	2" x 1/8"	.969 lbs.
3/4" x 3/8"	1.090 lbs.	1 1/4" x 1/4"	1.211 lbs.	2" x 3/16"	1.453 lbs.
3/4" x 1/2"	1.453 lbs.	1 1/4" x 5/16"	1.514 lbs.	2" x 1/4"	1.938 lbs.
7/8" x 3/16"	.635 lbs.	1 1/4" x 3/8"	1.816 lbs.	2" x 3/8"	2.907 lbs.
7/8" x 1/4"	.847 lbs.	1 1/4" x 1/2"	2.422 lbs.	2" x 1/2"	3.876 lbs.
7/8" x 3/8"	1.271 lbs.	1 1/4" x 5/8"	3.028 lbs.	2" x 3/4"	5.814 lbs.
7/8" x 1/2"	1.695 lbs.	1 1/2" x 1/8"	.726 lbs.	2" x 1"	7.752 lbs.

(Continued on next page)



## RECTANGULAR HOT ROLLED MONEL RODS (Cont.)

### REGULAR MONEL

In 6 to 18 Foot Lengths

Dimensions	Approx. Wt. Per Foot	Dimensions	Approx. Wt. Per Foot	Dimensions	Approx. Wt. Per Foot
2 1/4" x 1/8"	1.090 lbs.	2 1/2" x 3/4"	7.267 lbs.	3" x 1"	11.628 lbs.
2 1/2" x 1/8"	1.211 lbs.	3" x 1/8"	1.453 lbs.	4" x 1/8"	1.938 lbs.
2 1/2" x 3/16"	1.867 lbs.	3" x 3/16"	2.163 lbs.	4" x 3/16"	2.909 lbs.
2 1/2" x 1/4"	2.422 lbs.	3" x 1/4"	2.907 lbs.	4" x 1/4"	3.876 lbs.
2 1/2" x 3/8"	3.633 lbs.	3" x 3/8"	4.360 lbs.	4" x 3/8"	5.814 lbs.
2 1/2" x 1/2"	4.845 lbs.	3" x 1/2"	5.814 lbs.	4" x 1/2"	7.752 lbs.
2 1/2" x 5/8"	6.056 lbs.	3" x 3/4"	8.721 lbs.	4" x 3/4"	11.628 lbs.

## HOT ROLLED MONEL RODS

Available from Mill

Hot Rolled Rods other than those carried in stock can also be produced within the following limitations:

### REGULAR MONEL

#### ROUNDS

1/4" to 4 1/2" Dia. Inc.

#### ROUNDS HAMMERED AND TURNED

3 1/8" to 8" Dia. Inc.

#### HALF ROUNDS

3/8" to 2" Dia. Inc.

#### HALF OVALS

1/2", 3/4", 7/8", 1", 1 1/4" and 1 1/2"

Across Flat

#### HEXAGONS

3/8" to 2 1/8" Inc.

### SQUARES

5/16" to 2 1/4" Inc.

### FLATS

1/8" to 2" Thick—1/2" to 10" Wide

## GRADE R MONEL

For Description See Page 150

### ROUNDS

1/4" to 2" Dia. Inc.

### HEXAGONS

3/8" to 2" Dia. Inc.

### SQUARES

5/16" to 2" Dia. Inc.

## COLD DRAWN ROUND MONEL PROPELLER SHAFT

Specially Straightened—Lengths About 16 Feet—Will Cut

Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot
*1/2"	.761 lbs.	1 1/4"	4.756 lbs.	2 1/4"	15.411 lbs.
*5/8"	1.189 lbs.	1 3/8"	5.756 lbs.	2 1/2"	19.027 lbs.
3/4"	1.712 lbs.	1 1/2"	6.849 lbs.	2 3/4"	23.022 lbs.
7/8"	2.331 lbs.	1 5/8"	8.039 lbs.	3"	27.399 lbs.
1"	3.044 lbs.	1 3/4"	9.321 lbs.		
1 1/8"	3.853 lbs.	2"	12.178 lbs.		

\*Carried in our Buffalo Warehouse only.  
Longer lengths available from mill.





## ROUND COLD DRAWN MONEL RODS

### REGULAR MONEL

In 6 to 16 Foot Lengths.

Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot
1/2"	.761 lbs.	1 1/4"	4.756 lbs.	2"	12.178 lbs.
9/16"	.963 lbs.	1 5/16"	5.244 lbs.	2 1/8"	13.747 lbs.
5/8"	1.189 lbs.	1 3/8"	5.756 lbs.	2 3/16"	14.579 lbs.
1 1/16"	1.439 lbs.	1 7/16"	6.291 lbs.	2 1/4"	15.411 lbs.
3/4"	1.712 lbs.	1 1/2"	6.849 lbs.	2 3/8"	17.171 lbs.
13/16"	2.010 lbs.	1 9/16"	7.432 lbs.	2 7/16"	18.099 lbs.
7/8"	2.331 lbs.	1 5/8"	8.039 lbs.	2 1/2"	19.027 lbs.
1 5/16"	2.766 lbs.	1 11/16"	8.669 lbs.	2 5/8"	20.977 lbs.
1"	3.044 lbs.	1 3/4"	9.321 lbs.	2 3/4"	23.022 lbs.
1 1/16"	3.436 lbs.	1 13/16"	10.001 lbs.	2 7/8"	25.162 lbs.
1 1/8"	3.853 lbs.	1 7/8"	10.072 lbs.	3"	27.399 lbs.
1 3/16"	4.293 lbs.	1 15/16"	11.428 lbs.		

### GRADE "R" MONEL

Automatic Screw Machine Stock—For Description see page 150

In 12-Foot Lengths

Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot
*1/16"	.012 lbs.	9/32"	.235 lbs.	5/8"	1.189 lbs.
*3/32"	.027 lbs.	5/16"	.297 lbs.	1 1/16"	1.439 lbs.
*1/8"	.047 lbs.	1 1/32"	.354 lbs.	3/4"	1.712 lbs.
*5/32"	.074 lbs.	3/8"	.428 lbs.	7/8"	2.331 lbs.
3/16"	.107 lbs.	7/16"	.583 lbs.	1 5/16"	2.651 lbs.
7/32"	.146 lbs.	1/2"	.761 lbs.	1"	3.044 lbs.
1/4"	.190 lbs.	9/16"	.963 lbs.	1 1/8"	3.853 lbs.
				1 1/4"	4.756 lbs.

\*Carried in 6-Foot Lengths Only.

## HEXAGON COLD DRAWN MONEL RODS

### REGULAR MONEL

In 6 to 16 Foot Lengths  
(Measured Across Flats)

Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot
1/2"	.839 lbs.	7/8"	2.570 lbs.	1 1/2"	7.551 lbs.
9/16"	1.062 lbs.	1"	3.356 lbs.	1 5/8"	8.863 lbs.
5/8"	1.311 lbs.	1 1/4"	5.243 lbs.	1 3/4"	10.276 lbs.
3/4"	1.887 lbs.	1 3/8"	6.346 lbs.		



## HEXAGON COLD DRAWN MONEL RODS (Cont.)

### GRADE "R" MONEL

Automatic Screw Machine Stock—For Description see page 150  
In 12-Foot Lengths  
(Measured Across Flats)

Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot
1/4"	.209 lbs.	9/16"	1.062 lbs.	1 1/8"	4.248 lbs.
5/16"	.327 lbs.	5/8"	1.311 lbs.	1 1/4"	5.243 lbs.
3/8"	.472 lbs.	3/4"	1.887 lbs.	1 1/2"	7.551 lbs.
7/16"	.643 lbs.	13/16"	2.181 lbs.	1 5/8"	8.863 lbs.
1/2"	.839 lbs.	1"	3.356 lbs.		

## SQUARE COLD DRAWN MONEL RODS

### Regular Monel

In 6 to 12 Foot Lengths  
(Measured Across Flats)

Dimensions	Approx. Wt. Per Foot	Dimensions	Approx. Wt. Per Foot	Dimensions	Approx. Wt. Per Foot
3/16" x 3/16"	.134 lbs.	9/16" x 9/16"	1.226 lbs.	1 1/4" x 1 1/4"	6.056 lbs.
1/4" x 1/4"	.241 lbs.	5/8" x 5/8"	1.514 lbs.	1 1/2" x 1 1/2"	8.721 lbs.
5/16" x 5/16"	.379 lbs.	3/4" x 3/4"	2.180 lbs.	2" x 2"	15.504 lbs.
3/8" x 3/8"	.540 lbs.	7/8" x 7/8"	2.968 lbs.		
1/2" x 1/2"	.969 lbs.	1" x 1"	3.876 lbs.		

### GRADE "R" MONEL

Automatic Screw Machine Stock—For Description see page 150  
In 6 to 12 Foot Lengths  
(Measured Across Flats)

Dimensions	Approx. Wt. Per Foot	Dimensions	Approx. Wt. Per Foot	Dimensions	Approx. Wt. Per Foot
1/8" x 1/8"	.061 lbs.	5/16" x 5/16"	.379 lbs.	1/2" x 1/2"	.969 lbs.
1/4" x 1/4"	.241 lbs.	3/8" x 3/8"	.545 lbs.		

## COLD DRAWN MONEL RODS

Cold Rolled Rods other than those carried in stock can also be produced within the following limitations:

### REGULAR MONEL

#### ROUNDS

Up to 3" Dia.

#### HEXAGONS

Up to 2" Dia.

#### SQUARES

Up to 2 1/8" Dia.

#### FLATS

3/16" to 2" Thick—1/2" to 4" Wide

### GRADE "R" MONEL

For Description See Page 150

#### ROUNDS

Up to 2" Dia.

#### HEXAGONS

Up to 2" Dia.

#### SQUARES

Up to 2" Dia.

## MONEL WELDING RODS

Consult Welding and Brazing Section—Pages 197, 198.



# INCO MONEL •

ANGLES

## COLD ROLLED MONEL (STRIP) ANGLES

In Random Lengths.					
Size of Legs	Thickness	Approx. Wt. Per Foot	Size of Legs	Thickness	Approx. Wt. Per Foot
$\frac{1}{2}" \times \frac{1}{2}" \times \frac{1}{16}"$ (.0625")		.216 lbs.	$1" \times 1" \times \frac{1}{16}"$ (.0625")		.454 lbs.
$\frac{1}{2}" \times \frac{1}{2}" \times \frac{7}{64}"$ (.109")		.367 lbs.	$1" \times 1" \times \frac{7}{64}"$ (.109")		.786 lbs.
$\frac{3}{4}" \times \frac{3}{4}" \times \frac{1}{16}"$ (.0625")		.335 lbs.	$1\frac{1}{2}" \times 1\frac{1}{2}" \times \frac{1}{16}"$ (.0625")		.684 lbs.
$\frac{3}{4}" \times \frac{3}{4}" \times \frac{7}{64}"$ (.109")		.576 lbs.	$1\frac{1}{2}" \times 1\frac{1}{2}" \times \frac{7}{64}"$ (.109")		1.205 lbs.

Cold Rolled Angles other than those carried in stock can be produced within the following limitations:  $\frac{1}{2}" \times \frac{1}{2}"$  to  $3" \times 3"$  inclusive .062" to .109" thick.

## HOT ROLLED ANNEALED MONEL ANGLES

In 6 to 18 Foot Lengths.					
Size of Legs	Thickness	Approx. Wt. Per Foot	Size of Legs	Thickness	Approx. Wt. Per Foot
$1" \times 1" \times \frac{1}{8}"$ (.125")		.969 lbs.	$1\frac{1}{2}" \times 1\frac{1}{2}" \times \frac{1}{4}"$ (.250")		2.907 lbs.
$1\frac{1}{4}" \times 1\frac{1}{4}" \times \frac{1}{8}"$ (.125")		1.211 lbs.	$2" \times 2" \times \frac{1}{8}"$ (.125")		1.938 lbs.
$1\frac{1}{4}" \times 1\frac{1}{4}" \times \frac{3}{16}"$ (.187")		1.816 lbs.	$2" \times 2" \times \frac{1}{4}"$ (.250")		3.869 lbs.
$1\frac{1}{4}" \times 1\frac{1}{4}" \times \frac{1}{4}"$ (.250")		2.422 lbs.	$2\frac{1}{2}" \times 2\frac{1}{2}" \times \frac{1}{4}"$ (.250")		4.845 lbs.
$1\frac{1}{2}" \times 1\frac{1}{2}" \times \frac{1}{8}"$ (.125")		1.453 lbs.	$3" \times 3" \times \frac{1}{4}"$ (.250")		5.814 lbs.
$1\frac{1}{2}" \times 1\frac{1}{2}" \times \frac{3}{16}"$ (.187")		2.224 lbs.			

Hot Rolled Angles other than those carried in stock can be produced within the following limitations:  $\frac{7}{8}" \times \frac{7}{8}"$  to  $3" \times 3"$  inclusive  $\frac{1}{8}"$  to  $\frac{1}{2}"$  thick.

## COLD DRAWN SOFT MONEL WIRE IN COILS

Diameter	Approx. Wt. Per Foot	Diameter	Approx. Wt. Per Foot
(.062") $\frac{1}{16}"$	.012 lbs.	* (.144")	.060 lbs.
(.093") $\frac{3}{32}"$	.027 lbs.	(.156") $\frac{5}{32}"$	.074 lbs.
* (.102")	.031 lbs.	(.187") $\frac{3}{16}"$	.107 lbs.
(.125") $\frac{1}{8}"$	.047 lbs.		

\* Carried in our Buffalo Warehouse only.

† Carried in our Boston Warehouse only.

## COLD DRAWN MONEL WIRE

Cold Drawn Wire not listed above can also be produced within the following limitations; Shipment from mill subject to your requirements.

### All Tempers Except Spring Temper

.002" to .4375" Dia.

### Spring Temper

.002" to .310" Dia.

Wire (all tempers) (.051") and larger can be cut to length and straightened, or wound on spools.

WIRE





## COLD DRAWN SEAMLESS MONEL TUBES

In Random Mill Lengths									
Outside Diameter	Wall Thick. Stubs' Gauge	Inside Diameter	Approx. Wt. Per Foot		Outside Diameter	Wall Thick. Stubs' Gauge	Inside Diameter	Approx. Wt. Per Foot	
1/4" No. 20 (.035")		.180"	.091 lbs.		1 1/2" No. 11 (.120")		1.260"	1.990 lbs.	
3/8" No. 20 (.035")		.305"	.143 lbs.		1 5/8" No. 16 (.065")		1.495"	1.220 lbs.	
3/8" No. 16 (.065")		.245"	.242 lbs.		1 5/8" No. 11 (.120")		1.385"	2.170 lbs.	
1/2" No. 20 (.035")		.430"	.196 lbs.		1 3/4" No. 20 (.035")		1.680"	.722 lbs.	
1/2" No. 18 (.049")		.402"	.266 lbs.		1 3/4" No. 16 (.065")		1.620"	1.320 lbs.	
1/2" No. 16 (.065")		.370"	.340 lbs.		1 3/4" No. 14 (.083")		1.584"	1.660 lbs.	
5/8" No. 20 (.035")		.545"	.248 lbs.		2" No. 20 (.035")		1.930"	.827 lbs.	
5/8" No. 18 (.049")		.527"	.339 lbs.		2" No. 18 (.049")		1.902"	1.150 lbs.	
3/4" No. 20 (.035")		.680"	.301 lbs.		2" No. 16 (.065")		1.870"	1.510 lbs.	
3/4" No. 18 (.049")		.652"	.413 lbs.		2" No. 14 (.083")		1.834"	1.910 lbs.	
3/4" No. 16 (.065")		.620"	.535 lbs.		2 1/4" No. 16 (.065")		2.120"	1.710 lbs.	
7/8" No. 20 (.035")		.805"	.354 lbs.		2 1/4" No. 14 (.083")		2.084"	2.160 lbs.	
7/8" No. 16 (.065")		.745"	.633 lbs.		2 1/4" No. 11 (.120")		1.985"	3.070 lbs.	
1" No. 20 (.035")		.930"	.406 lbs.		2 3/8" No. 16 (.065")		2.245"	1.810 lbs.	
1" No. 18 (.049")		.902"	.560 lbs.		2 1/2" No. 16 (.065")		2.370"	1.900 lbs.	
1" No. 17 (.058")		.884"	.657 lbs.		2 1/2" No. 14 (.083")		2.334"	2.410 lbs.	
1" No. 16 (.065")		.870"	.731 lbs.		2 1/2" No. 12 (.109")		2.282"	3.130 lbs.	
1" No. 14 (.083")		.834"	.915 lbs.		3" No. 16 (.065")		2.870"	2.290 lbs.	
1" No. 11 (.120")		.760"	1.270 lbs.		3" No. 14 (.083")		2.834"	2.910 lbs.	
1 1/4" No. 16 (.065")		1.120"	.926 lbs.		3" No. 11 (.120")		2.764"	4.160 lbs.	
1 1/4" No. 14 (.083")		1.084"	1.160 lbs.		3 1/2" No. 14 (.083")		3.334"	3.410 lbs.	
1 1/4" No. 11 (.120")		1.010"	1.630 lbs.		4" No. 16 (.065")		3.870"	3.070 lbs.	
1 1/2" No. 20 (.035")		1.430"	.617 lbs.		4" No. 14 (.083")		3.834"	3.910 lbs.	
1 1/2" No. 16 (.065")		1.370"	1.120 lbs.		4" No. 11 (.120")		3.760"	5.100 lbs.	
1 1/2" No. 14 (.083")		1.334"	1.410 lbs.						

Also available from mill .006 O.D. and up in various wall thicknesses.

## COLD DRAWN SEAMLESS MONEL PIPE

In 12 Foot Lengths

### Standard Pipe Sizes

Size I. P. S.	Wall Thickness	Outside Diameter	Inside Diameter	Approx. Weight Per Foot
1/8"	.068"	.405"	.269"	.274 lbs.
1/4"	.088"	.540"	.364"	.477 lbs.
3/8"	.091"	.675"	.493"	.638 lbs.
1/2"	.109"	.840"	.622"	.957 lbs.
3/4"	.113"	1.050"	.824"	1.272 lbs.
1"	.133"	1.315"	1.049"	1.889 lbs.
1 1/4"	.140"	1.660"	1.380"	2.558 lbs.
1 1/2"	.145"	1.900"	1.610"	3.059 lbs.

(Continued on next page)

TUBES

PIPE

SPECIAL



# INCO MONEL •

## COLD DRAWN SEAMLESS MONEL PIPE (Cont.)

In 12 Foot Lengths

### Standard Pipe Sizes

Size I. P. S.	Wall Thickness	Outside Diameter	Inside Diameter	Approx. Weight Per Foot
2"	.154"	2.375"	2.067"	4.112 lbs.
2½"	.203"	2.875"	2.469"	6.522 lbs.
3"	.216"	3.500"	3.068"	8.529 lbs.
4"	.237"	4.500"	4.026"	12.139 lbs.

## REGULAR MONEL CASTINGS

Sand or Centrifugal Castings made to blueprint specifications or patterns.  
See page 208.

## THREADED MONEL PIPE FITTINGS

In Standard I.P.S. Sizes

### TEES

¼"	⅜"	½"	¾"	1"	1¼"	1½"	2"
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### UNIONS

¼"	⅜"	½"	¾"	1"	1¼"	1½"	2"
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### CAPS

¼"	⅜"	½"	¾"	1"	1¼"	1½"	2"
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### COUPLINGS

¼"	⅜"	½"	¾"	1"	1¼"	1½"	2"
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### 45° ELBOWS

⅜"	½"	¾"	1"
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### 90° ELBOWS

¼"	⅜"	½"	¾"	1"	1¼"	1½"	2"
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### GATE VALVES

¼"	⅜"	½"	¾"	1"	1¼"
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### GLOBE VALVES

½"	¾"	1"	2"
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### LOCKNUTS

¾"	1"	1¼"
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### NIPPLES

Can furnish any size from stock

### PLUGS

¼"	⅜"	½"	¾"	1"	1¼"	1½"	2"
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Flanges, Return Bends, Crosses, Y-Laterals, Reducers, Available From Mill

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## "K" MONEL

\*Reg. U.S. Pat. Off.

For Description See Page 150

Available Forms

### HOT ROLLED RODS

Rounds . . . . .  $\frac{1}{4}$ " to 3" Dia. Inc.  
 Hexagons . . . . .  $\frac{3}{8}$ " to  $2\frac{1}{8}$ " (Across Flats) Inc.  
 Squares . . . . .  $\frac{5}{16}$ " to 1" Inc.  
 Flats . . . . .  $\frac{1}{4}$ " to  $1\frac{5}{16}$ " Thick— $\frac{1}{2}$ " to 2" Wide

### COLD DRAWN RODS

Rounds . . . . . Up to 3" Dia.  
 Hexagons . . . . . Up to 1" (Across Flats) Inc.  
 Squares . . . . . Up to 1" Inc.

### COLD ROLLED STRIP

#3 to #32 U. S. Standard Gauge Thick—Up to 12" Wide

## "KR" MONEL

For description see page 150

Available Forms

### HOT ROLLED RODS

Rounds . . . . .  $\frac{3}{8}$ " to 2" Dia. Inc.  
 Hexagons . . . . .  $\frac{7}{16}$ " to 2" Inc.  
 Squares . . . . .  $\frac{7}{16}$ " to 1" Inc.

### COLD DRAWN RODS

Rounds . . . . . Up to 2" Dia.  
 Hexagons . . . . . Up to 1" (Across Flats) Inc.  
 Squares . . . . . Up to 1" Inc.

Cold Drawn Wire also available

## "S" AND "H" MONEL

For description see page 150

Casting Alloys only. Sand or Centrifugal Castings made to blueprint specifications or patterns. See Page 208.





# INCO NICKEL •

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## STANDARD COLD ROLLED PURE NICKEL SHEETS

### DESCRIPTION OF STANDARD COLD ROLLED PURE NICKEL SHEET

The Standard Cold Rolled Sheet is a cold rolled, soft, commercially flat sheet. It is used where appearance and smoothness of surface are important; can be used in moderate drawing and all bending operations, including lock seaming, and is readily soldered and welded.

Plain—Not Polished

Thickness U. S. Standard Gauge	Width Length	Approx. Wt. Per Sheet
No. 25 (.021")	36" x 96"	24.24 lbs.
No. 24 (.025")	36" x 96"	27.60 lbs.
No. 22 (.031")	36" x 96"	34.56 lbs.
No. 20 (.037")	36" x 96"	41.52 lbs.
No. 20 (.037")	48" x 120"	69.20 lbs.
No. 18 (.050")	36" x 96"	55.20 lbs.
No. 18 (.050")	48" x 120"	92.00 lbs.
No. 16 (.062")	36" x 96"	69.12 lbs.
No. 16 (.062")	48" x 120"	115.20 lbs.
No. 14 (.078")	36" x 96"	86.40 lbs.
No. 14 (.078")	48" x 120"	144.00 lbs.
No. 13 (.093")	36" x 96"	103.44 lbs.
No. 11 (.125")	36" x 96"	138.24 lbs.
No. 11 (.125")	48" x 120"	230.40 lbs.

## SPECIAL COLD ROLLED PURE NICKEL SHEETS

Available for Prompt Shipment from Mill

Thicknesses—.018" to .250", Inclusive

Widths— 24" 30" 36" 42" 48"

Lengths— 72" 96" 120" 144"

### DESCRIPTION OF SPECIAL COLD ROLLED SHEET

Special Cold Rolled sheet can be obtained in various tempers. This quality sheet is recommended for deep drawing applications.

The following finishes can be secured:

- (a) Plain.
- (b) #5 high polish. Available in soft temper only and on one side only.
- (c) #9 or #10 satin finish on one or both sides, in soft temper only.

For weight per square foot see pages 221 through 224.

## COLD ROLLED PURE NICKEL STRIP

Shipment from Mill

Thicknesses—.001" to .250" Incl.

Widths— $\frac{3}{32}$ " to 18" Incl.

Furnished in coils or in straight lengths in gauges thinner than  $\frac{1}{8}$ "; thicker gauges than  $\frac{1}{8}$ ", straight lengths only.



## HOT ROLLED PURE NICKEL PLATE

Hot Rolled Nickel Plate is produced by hot rolling slabs to plate sizes and thicknesses. The plate carries a superficial oxide coating dark in color and the surface is comparable with the better grades of steel plate.

Plates are shipped in the "As Rolled" condition unless "Annealed Plate" is specified.

Available for Prompt Shipment from the Mill

Thicknesses	Widths	Lengths
1/4" to 2" Inc.	10" to 160" Inc.	to 480" Inc.

*Schedule Showing Sizes Within Mill Limits Sent Upon Request.*

## ROUND HOT ROLLED PURE NICKEL RODS

In 6 to 18 Foot Lengths.

Diameter	Approx. Weight Per Foot	Diameter	Approx. Weight Per Foot
1/4"	.190 lbs.	1"	3.016 lbs.
3/8"	.424 lbs.	1 1/4"	4.712 lbs.
1/2"	.754 lbs.	1 1/2"	6.786 lbs.
5/8"	1.178 lbs.	1 3/4"	9.236 lbs.
3/4"	1.696 lbs.	2"	12.064 lbs.
7/8"	2.309 lbs.		

## HEXAGON HOT ROLLED PURE NICKEL RODS

In 6 to 18 Foot Lengths.  
Measured Across Flats

Diameter	Approx. Weight Per Foot	Diameter	Approx. Weight Per Foot	Diameter	Approx. Weight Per Foot
7/16"	.636 lbs.	5/8"	1.299 lbs.	1 3/16"	2.195 lbs.
1/2"	.831 lbs.	3/4"	1.870 lbs.	7/8"	2.546 lbs.
9/16"	1.052 lbs.				

## ROUND COLD DRAWN PURE NICKEL RODS

In 10 to 12 Foot Lengths

Diameter	Approx. Weight Per Foot	Diameter	Approx. Weight Per Foot	Diameter	Approx. Weight Per Foot
1/8"	.047 lbs.	3/8"	.428 lbs.	7/8"	2.309 lbs.
5/32"	.074 lbs.	1/2"	.754 lbs.	1"	3.016 lbs.
3/16"	.107 lbs.	5/8"	1.178 lbs.	1 1/4"	4.712 lbs.
1/4"	.190 lbs.	3/4"	1.696 lbs.	1 1/2"	6.786 lbs.
5/16"	.297 lbs.				

## PURE NICKEL WELDING RODS

Consult Welding and Brazing Section—Pages 197, 198.

Pure Nickel Rods, including round, hexagon, square, rectangular, in hot rolled or cold drawn, in sizes not listed are available for shipment from the mill—consult us.



# INCO NICKEL •

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## COLD DRAWN SEAMLESS PURE NICKEL TUBES

In Random Mill Lengths

Outside Diameter	Wall Thickness Stub's Gauge	Inside Diameter	Approx. Weight Per Foot
1/4"	No. 20 (.035")	.180"	.091 lbs.
5/16"	No. 21 (.032")	.248"	.108 lbs.
5/16"	No. 16 (.065")	.182"	.193 lbs.
3/8"	No. 20 (.035")	.305"	.143 lbs.
3/8"	No. 16 (.065")	.245"	.242 lbs.
7/16"	No. 20 (.035")	.367"	.170 lbs.
1/2"	No. 20 (.035")	.430"	.196 lbs.
1/2"	No. 16 (.065")	.370"	.340 lbs.
1/2"	No. 11 (.120")	.260"	.548 lbs.
5/8"	No. 16 (.065")	.495"	.438 lbs.
5/8"	No. 13 (.095")	.435"	.605 lbs.
5/8"	No. 11 (.120")	.385"	.729 lbs.
3/4"	No. 23 (.025")	.700"	.218 lbs.
3/4"	No. 20 (.035")	.680"	.301 lbs.
3/4"	No. 19 (.042")	.666"	.358 lbs.
3/4"	No. 18 (.049")	.652"	.413 lbs.
3/4"	No. 16 (.065")	.620"	.535 lbs.
3/4"	No. 11 (.120")	.510"	.909 lbs.
7/8"	No. 16 (.065")	.745"	.633 lbs.
7/8"	No. 11 (.120")	.635"	1.090 lbs.
1"	No. 20 (.035")	.930"	.406 lbs.
1"	No. 18 (.049")	.902"	.560 lbs.
1"	No. 16 (.065")	.870"	.731 lbs.
1"	No. 14 (.083")	.834"	.915 lbs.
1"	No. 11 (.120")	.760"	1.270 lbs.
1 1/4"	No. 16 (.065")	1.120"	.926 lbs.
1 1/4"	No. 13 (.095")	1.060"	1.320 lbs.
1 1/4"	No. 11 (.120")	1.010"	1.630 lbs.
1 3/8"	No. 16 (.065")	1.245"	1.020 lbs.
1 1/2"	No. 20 (.035")	1.430"	.617 lbs.
1 1/2"	No. 16 (.065")	1.370"	1.12 lbs.
1 1/2"	No. 14 (.083")	1.334"	1.41 lbs.
1 1/2"	No. 11 (.120")	1.260"	1.99 lbs.
1 3/4"	No. 20 (.035")	1.680"	.72 lbs.
1 3/4"	No. 16 (.065")	1.620"	1.32 lbs.
2"	No. 20 (.035")	1.930"	.83 lbs.
2"	No. 16 (.065")	1.870"	1.51 lbs.
2"	No. 14 (.083")	1.834"	1.91 lbs.
2"	No. 11 (.120")	1.760"	2.71 lbs.

(Continued on next page)





## COLD DRAWN SEAMLESS PURE NICKEL TUBES (Cont.)

In Random Mill Lengths

Outside Diameter	Wall Thickness Stubbs' Gauge	Inside Diameter	Approx. Weight Per Foot
2 1/2"	No. 13 (.095")	2.310"	2.75 lbs.
3"	No. 16 (.065")	2.870"	2.29 lbs.
3"	No. 14 (.083")	2.834"	2.91 lbs.
3"	No. 13 (.095")	2.810"	3.32 lbs.
3"	No. 11 (.120")	2.760"	4.16 lbs.
3 1/2"	No. 10 (.134")	3.232"	5.42 lbs.
4"	No. 16 (.065")	3.870"	3.07 lbs.
4"	No. 14 (.083")	3.834"	3.91 lbs.
4"	No. 13 (.095")	3.810"	4.46 lbs.
4"	No. 12 (.109")	3.782"	5.10 lbs.
4"	No. 11 (.120")	3.760"	5.60 lbs.

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## COLD DRAWN SEAMLESS PURE NICKEL PIPE

In 12 Foot Exact and Random Lengths  
Standard Pipe Sizes

Size I.P.S.	Wall Thickness	Outside Diameter	Inside Diameter	Approx. Weight Per Foot
1/8"	.068"	.405"	.269"	.274 lbs.
1/4"	.088"	.540"	.364"	.477 lbs.
3/8"	.091"	.675"	.493"	.638 lbs.
1/2"	.109"	.840"	.622"	.957 lbs.
3/4"	.113"	1.050"	.824"	1.272 lbs.
1"	.133"	1.315"	1.049"	1.889 lbs.
1 1/4"	.140"	1.660"	1.380"	2.558 lbs.
1 1/2"	.145"	1.900"	1.610"	3.059 lbs.
2"	.154"	2.375"	2.067"	4.112 lbs.
2 1/2"	.203"	2.875"	2.469"	6.522 lbs.
3"	.216"	3.500"	3.068"	8.529 lbs.
4"	.237"	4.500"	4.026"	12.139 lbs.

## THREADED NICKEL PIPE FITTINGS

In Standard I.P.S. Sizes

### CAPS

1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
------	------	------	------	----	--------	--------	----

### COUPLINGS

1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
------	------	------	------	----	--------	--------	----

### 45° ELBOWS

3/8"	1/2"	3/4"	1"
------	------	------	----

### 90° ELBOWS

1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
------	------	------	------	----	--------	--------	----

### GATE VALVES

1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
------	------	----	--------	--------	----

(Continued on next page)

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# INCO NICKEL •

## THREADED NICKEL PIPE FITTINGS (Cont.)

In Standard I.P.S. Sizes

### NIPPLES

Can furnish any size from stock.

### PLUGS

1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
------	------	------	------	----	--------	--------	----

### TEES

1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
------	------	------	------	----	--------	--------	----

### UNIONS

1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
------	------	------	------	----	--------	--------	----

### ALSO AVAILABLE

**Crosses**  
**Street Elbows**  
**Reducers**

**Flanges**  
**Globe Valves**  
**Lock Nuts**

**Plug Cocks**  
**Stop Cocks**  
**and Miscellaneous Fittings**

**Return Bends**  
**Y-Laterals**

## NICKEL CASTINGS

Sand or Centrifugal Castings made to blueprint specifications or patterns.  
See Page 208.

### "D" NICKEL\*

For Description see Page 151  
Available Forms

#### HOT ROLLED RODS

Rounds.....1/4" to 4 1/2" Dia.  
Hexagons.....3/8" to 2 1/2" Across Flats  
Squares.....5/16" to 2 1/4"  
Flats.....1/8" to 1 1/16" Thick—1/2" to 8" Wide

#### COLD DRAWN RODS

Rounds up to 3" Dia.—Hexagons up to 2" Dia.—Squares up to 2 1/8" Dia.  
Cold Rolled Strip—#3 to #32 U.S.S. Gauge Thick—up to 18" wide.

### "Z" NICKEL

For Description see Page 151  
Available Forms

#### HOT ROLLED RODS

Rounds.....1/4" to 2" Dia.  
Hexagons.....3/8" to 2"  
Squares.....5/16" to 1"  
Flats.....1/4" to 3/4" Thick—1/2" to 4" Wide

#### COLD DRAWN RODS

Rounds up to 1 3/4" Dia.—Hexagons up to 3/4" Dia.—Squares up to 3/4" Dia.  
Cold Drawn Wire also available.  
Cold Rolled Strip—#9 to #32 U.S.S. Gauge Thick—up to 12" wide.

\*Reg. U.S. Pat. Off.



## INCONEL \*

\* Reg. U. S. Pat. Off.

For description see page 151

### STANDARD INCONEL SHEET

No. 10 Finish One Side

Thickness U. S. S. Gauge	Width	Length	Appr. Wt. Per Sheet	Thickness U. S. S. Gauge	Width	Length	Appr. Wt. Per Sheet
No. 24 (.025")	36"x	96"	24.64 lbs.	No. 18 (.050")	36"x	96"	53.28 lbs.
No. 22 (.031")	36"x	96"	33.36 lbs.	No. 16 (.062")	36"x	96"	66.72 lbs.
No. 20 (.037")	36"x	96"	40.08 lbs.	No. 14 (.078")	48"x	96"	111.36 lbs.
No. 20 (.037")	48"x	120"	66.80 lbs.				

Additional sizes available from mill within the following limits: Thickness #3 to #26 U.S.S. Gauge, Lengths to 120", Widths to 48"

### COLD DRAWN SEAMLESS ANNEALED INCONEL PIPE

I. P. S. Size	Outside Dim.	Inside Dim.	Wall Thick.	Approx. Wt. Per Foot
1/2"	.840"	.622"	.109"	.93 lbs.
3/4"	1.050"	.824"	.113"	1.23 lbs.
1"	1.315"	1.049"	.133"	1.83 lbs.
1 1/2"	1.900"	1.610"	.145"	2.96 lbs.
2"	2.375"	2.067"	.154"	3.98 lbs.

Additional Pipe Sizes and Extra Heavy Pipe available from the mill within the following limits: Standard I.P.S. from 1/4" up to 3 1/2". Extra Heavy from 3/8" to 2".

### OTHER AVAILABLE FORMS

#### HOT ROLLED RODS

Rounds . . . . . 1/4" to 4 1/2" Dia.  
 Hexagons . . . . . 3/8" to 2 1/8" Dia.  
 Squares . . . . . 5/16" to 2 1/4" Dia.  
 Flats . . . . . 1/8" to 1 1/16" Thick—1/2" to 10" Wide  
 Angles . . . . . 1" to 2" Legs—1/4" to 3/8" Thick  
 Wire also available.

#### COLD DRAWN RODS

Rounds—1/2" to 2"

#### COLD DRAWN SEAMLESS TUBES

1/2" to 4" Outside Dia.—#3 to #20 Stubs Gauge Wall Thickness

#### COLD ROLLED STRIP

#3 to #32 U. S. S. Gauge Thick—Up to 18" Wide

Casting—Sand or Centrifugal made to blueprint specifications or patterns.  
 See Page 208.

Accessories and Fastenings—Consult us

Write for Booklets T-7, "Properties of Inconel," and T-2, "Welding, Brazing and Soft Soldering of Monel, Nickel and Inconel."





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## MONEL UTENSILS

For the  
CHEMICAL, FOOD AND TEXTILE INDUSTRIES  
LAUNDRY AND DRY CLEANING PLANTS

### PAILS

Size	Capacity To Brim	Diameter At Top	At Bottom	Depth
12 Qt.	12.6 Qt.	10 $\frac{3}{4}$ "	9"	9 $\frac{1}{2}$ "
14 Qt.	14.7 Qt.	11 $\frac{1}{4}$ "	9"	10 $\frac{3}{4}$ "
16 Qt.	16.8 Qt.	11 $\frac{3}{4}$ "	9"	12"
20 Qt.	20.5 Qt.	11 $\frac{1}{2}$ "	9"	14"

### DIPPERS

#### FLAT BOTTOM

Seamed—Plain Handle

1 Qt.—2 Qt.—3 Qt.—4 Qt.

#### FLAT BOTTOM

Seamed—Reinforced Handle

1 Qt.—2 Qt.—3 Qt.—4 Qt.

#### ROUND BOTTOM

Seamless Spun—Heavy

1 Qt.—2 Qt.—4 Qt.

#### FLAT BOTTOM

Seamless—Reinforced Handle

1 Qt.—2 Qt.

### MEASURES

Seamed—With Collar and Handle

$\frac{1}{2}$  Pt.—1 Pt.—1 Qt.—2 Qt.—1 Gal.

Seamed—With Collar,  
Bail and Pouring Handle

2 Gal. — 5 Gal.

The above measures have been approved by the Bureau of Weights and Measures,  
both as to capacity and construction.

### HAND SCOOPS

Round Bottom and Flat Bottom

1 Pt.—1 Qt.—2 Qt.—4 Qt.

### DYE AND STARCH BUCKETS

Seamed

10 Qt.—14 Qt.

With 40, 60, 80, 100 or 120 Mesh Screens

### FUNNELS

Seamed—With Collar

1 Pt.—1 Qt.—2 Qt.—1 Gal.—2 Gal.

The above funnels are rated in accordance with Navy specifications.



## MONEL UTENSILS (Cont.)

### MEASURING DIPPERS

Seamless Drawn  
Hold Rated Capacity to Brim  
Sizes

$\frac{1}{2}$  oz.—1 oz.—2 oz.

4 Oz. ( $\frac{1}{4}$  Pt.)—8 Oz. ( $\frac{1}{2}$  Pt.)—16 Oz. (1 Pt.)—32 Oz. (1 Qt.)

### SHOVELS

Sizes

No. 3—Dee Handle  
Square Point

Sizes

No. 3—Dee Handle  
Scoop

### BEAKERS

Sizes

250CC.—500CC.—1000CC.—1500CC.—2000CC.

### BATCH CANS

Seamed

Reinforced at top by iron ring, with handles attached and with iron chime.  
Monel is flanged out over edge of top band and for  $\frac{1}{4}$ " down on outside.  
Sizes

10 Gal.—15 Gal.—20 Gal.—25 Gal.—30 Gal.—40 Gal.—50 Gal.—75 Gal.

Sizes not mentioned and other utensils such as sieves, pans, trays, baskets, etc., can be made to order promptly.

*Write for descriptive pamphlet on Monel Pails and Utensils.*

## MONEL MACHINE BOLTS

### AMERICAN STANDARD HEAD

#### COLD HEADED

(With Hexagon American Standard Regular Nuts)

#### HEXAGON HEAD

Diameter  
and  
Threads

In Lengths of (in inches)

$\frac{1}{4}$ " —20	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{3}{4}$	3	—	$3\frac{1}{2}$	4
$\frac{5}{16}$ " —18	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{3}{4}$	3	—	$3\frac{1}{2}$	4
$\frac{3}{8}$ " —16	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{3}{4}$	3	$3\frac{1}{4}$	$3\frac{1}{2}$	4 $4\frac{1}{2}$ 5 6
$\frac{1}{2}$ " —13	—	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{3}{4}$	3	$3\frac{1}{4}$	$3\frac{1}{2}$	4 $4\frac{1}{2}$ 5 6



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## MONEL MACHINE BOLTS (Cont.)

### SQUARE HEAD

In Lengths of

Diameter and Threads												
1/4" —20	3/4"	1"	1 1/4"	1 1/2"	2"	—	2 1/2"	3"				
5/16" —18	3/4"	1"	1 1/4"	1 1/2"	2"	—	2 1/2"	3"	3 1/2"	4"		
3/8" —16	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/4"	2 1/2"	3"	3 1/2"	4"	4 1/2"	
1/2" —13	—	1"	1 1/4"	1 1/2"	2"	—	2 1/2"	3"	3 1/2"	4"	4 1/2"	5" 6"

### HOT FORGED

(With Hexagon American Standard Heavy Nuts)

### HEXAGON HEAD

In Lengths of

Diameter and Threads												
1/2" —13	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	4 1/2"	5"	6"	7" 8"
5/8" —11	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	4 1/2"	5"	6"	
3/4" —10	—	—	—	2"	2 1/2"	3"	3 1/2"	4"	4 1/2"	5"	6"	

### SQUARE HEAD

In Lengths of

Diameter and Threads												
1/2" —13	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	4 1/2"	5"	6"	7" 8"
5/8" —11	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	4 1/2"	5"	6"	
3/4" —10	—	—	—	2"	2 1/2"	3"	3 1/2"	4"	4 1/2"	5"	6"	

Sizes not listed can be produced promptly.

Square Nuts can be furnished if preferred to Hexagon Nuts on all of the above sizes.

## MONEL CARRIAGE BOLTS

Round Head—Square Neck

(With Square or Hexagon Nuts)

In Lengths of

Diameter and Threads												
1/4" —20	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"				
5/16" —18	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"				
3/8" —16	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	4 1/2"	5"	6"	
1/2" —13	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	4 1/2"	5"	6" 8"	
5/8" —11	—	—	—	—	—	—	—	—	—	5"	6"	—
3/4" —10	—	—	—	—	—	—	—	—	—	—	6" 8"	
1" — 8	—	—	—	—	—	—	—	—	—	—	—	8" 8 1/2"

## MONEL STUD BOLTS AND THREADED RODS

With Nuts (and Washers if Required)

U. S. S. Threads

Diameters: 1/4" to 1 1/4" inc.

Lengths: To suit your needs

Extra large Diameters (1 3/8" to 4" inc.) can also be made to order promptly.





## SPECIAL OVAL HEAD MONEL BOLTS

Square Neck  
With or Without Hexagon Nuts  
(Widely Used for Tanning Drums)  
Prompt Shipment

Diameter and Threads	In Lengths of (in inches)											
5/16"—18	2	2 1/2	3	3 1/2	4							
3/8"—16	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6			
1/2"—13	—	—	3	3 1/2	4	4 1/2	5	5 1/2	6	6 1/2	7	8
5/8"—11	—	—	—	—	4	4 1/2	5	5 1/2	6	6 1/2	7	8
3/4"—10	—	—	—	—	—	—	—	—	6	6 1/2	7	8
											9	10
											10 1/2	12

## SPECIAL TEE-HEAD MONEL BOLTS

With or Without Hexagon Nuts  
Prompt Shipment

In Sizes of—1/4" Dia. to 1 1/4" Dia.—Standard Lengths

## LARGE MUSHROOM HEAD MONEL BOLTS

Tanning Drum Bolts  
Hot Forged (One Piece) Smooth Head  
Square Collar  
With or Without Hexagon Nuts

Diameter and Threads	Size of Head	Size of Collar	In Lengths of				
3/4"—10	3" x 1 1/2"	1" x 1"	x 1 1/2"	6"	6 1/2"	*7"	7 1/2"
1"—8	3 1/2" x 5/8"	1 1/8" x 1 1/8"	x 1 1/2"	*8 1/2"			8"

\*Standard sizes carried in warehouse stock.

## MONEL STOVE BOLTS

With Square Nuts  
(Hexagon Nuts If Preferred)  
American National Standard Coarse Threads

## ROUND HEAD AND FLAT HEAD

Diameter and Threads	In Lengths of											
3/16"—24	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	1 3/4"	2"		
1/4"—20	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	3"
5/16"—18	—	1/2"	5/8"	3/4"	—	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	3"
3/8"—16	—	1/2"	5/8"	3/4"	—	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	3"

## OVEN HEAD

Diameter and Threads	In Lengths of											
3/16"—24	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	1 3/4"	2"		
1/4"—20	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	1 3/4"	2"		



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## MONEL STOVE BOLT NUTS

(Cold Pressed)

American National Standard Coarse Threads  
In Boxes of 100

### HEXAGON AND SQUARE

In Sizes of

$\frac{3}{16}$ "—24

$\frac{1}{4}$ "—20

$\frac{5}{16}$ "—18

$\frac{3}{8}$ "—16

## MONEL MACHINE SCREW NUTS

(Cold Pressed)

American National Standard Coarse Threads  
In One-Gross Boxes

### HEXAGON

In Sizes of

No. 2/56

No. 6/32

$\frac{1}{4}$ "—20

No. 3/48

No. 8/32

$\frac{5}{16}$ "—18

No. 4/36

No. 10/24

$\frac{3}{8}$ "—16

\*No. 10/32

### SQUARE

In Sizes of

No. 6/32

No. 10/24

$\frac{5}{16}$ "—18

No. 8/32

\*No. 10/32

$\frac{3}{8}$ "—16

$\frac{1}{4}$ "—20

## MONEL WING NUTS

(Cold Punched)

American National Standard Coarse Threads  
For Screws, Bolts and Rods  
In Boxes of 100

In Sizes of

No. 6/32

No. 10/24

$\frac{1}{4}$ "—20

$\frac{3}{8}$ "—16

No. 8/32

\*No. 10/32

$\frac{5}{16}$ "—18

$\frac{1}{2}$ "—13

## MONEL HEXAGON NUTS

(Milled from the Bar)

For Bolts and Rods

### American Standard—Regular

In Sizes of

$\frac{1}{4}$ " — 20

$\frac{3}{8}$ " — 16

$\frac{5}{8}$ " — 11

$\frac{5}{16}$ " — 18

$\frac{7}{16}$ " — 14

$\frac{3}{4}$ " — 10

$\frac{1}{2}$ " — 13

\*Fine Thread.



## MONEL HOT FORGED NUTS

For Bolts and Rods  
American Standard—Heavy

### HEXAGON

In Sizes of

$\frac{1}{2}$ "	— 13	$\frac{3}{4}$ "	— 10	$1\frac{1}{8}$ "	— 7
$\frac{5}{8}$ "	— 11	$\frac{7}{8}$ "	— 9	$1\frac{1}{4}$ "	— 7
		1"	— 8		

### SQUARE

In Sizes of

$\frac{1}{2}$ "	— 13	$\frac{5}{8}$ "	— 11	$\frac{3}{4}$ "	— 10
-----------------	------	-----------------	------	-----------------	------

## MONEL HEXAGON JAM NUTS

American Standard—Regular

In Sizes of

$\frac{1}{4}$ "	— 20	$\frac{3}{8}$ "	— 16	$\frac{5}{8}$ "	— 11
$\frac{5}{16}$ "	— 18	$\frac{1}{2}$ "	— 13	$\frac{3}{4}$ "	— 10

## MONEL HEXAGON CAP NUTS

(Milled from the Bar)

For Screws, Bolts and Rods  
American National Coarse Threads  
In Sizes of

$\frac{3}{16}$ "	— 24	$\frac{1}{4}$ "	— 20	$\frac{5}{16}$ "	— 18	$\frac{3}{8}$ "	— 16	$\frac{1}{2}$ "	— 13
------------------	------	-----------------	------	------------------	------	-----------------	------	-----------------	------

## MONEL COTTER PINS

In Boxes of 1000

In Lengths of

Diameters										
$\frac{1}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{3}{4}$ "	1"						
$\frac{3}{32}$ "	—	$\frac{1}{2}$ "	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "				
$\frac{1}{8}$ "	—	—	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	—	2"		
$\frac{5}{32}$ "	—	—	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	—	2"		
$\frac{3}{16}$ "	—	—	—	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	—	2"	$2\frac{1}{2}$ "	
$\frac{1}{4}$ "	—	—	—	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	$1\frac{3}{4}$ "	2"	$2\frac{1}{2}$ "	3"
$\frac{5}{16}$ "	—	—	—	—	—	—	—	2"	—	3"





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## MONEL FLAT WASHERS

For Bolts and Rods

Dia.	O. D.	I. D.	Thick.	Dia.	O. D.	I. D.	Thick.
1/4"	(5/8" x 9/32"	x .050")		5/8"	(15/8" x 11/16"	x .093")	
5/16"	(3/4" x 11/32"	x .050")		3/4"	(2" x 13/16"	x .109")	
3/8"	(1" x 13/32"	x .062")		7/8"	(23/8" x 15/16"	x .125")	
7/16"	(1 1/4" x 1/2"	x .062")		1"	(2 1/2" x 1 1/16"	x .125")	
1/2"	(1 3/8" x 9/16"	x .070")					

For Screws, Rivets and Rods

Dia.	O. D.	I. D.	Thick.	Dia.	O. D.	I. D.	Thick.
No. 6	(3/8" x 5/32"	x .031")		1/4"	(9/16" x 1/4"	x .031")	
No. 8	(7/16" x 3/16"	x .031")		5/16"	(3/4" x 11/32"	x .050")	
No. 10	(1/2" x 13/64"	x .037")		3/8"	(1" x 13/32"	x .062")	

## MONEL PLATE WASHERS

(Wrought Iron Sizes)

For Bolts and Rods

Dia.	O. D.	I. D.	Thick.	Dia.	O. D.	I. D.	Thick.
1/4"	( 3/4" x 5/16"	x .062")		3/4"	(2" x 13/16"	x .125")	
5/16"	( 7/8" x 3/8"	x .062")		7/8"	(2 1/4" x 15/16"	x .156")	
3/8"	(1" x 7/16"	x .078")		1"	(2 1/2" x 1 1/16"	x .156")	
1/2"	(1 3/8" x 9/16"	x .093")		1 1/8"	(2 3/4" x 1 1/4"	x .156")	
5/8"	(1 3/4" x 1 1/16"	x .125")		1 1/4"	(3" x 1 3/8"	x .156")	

## MONEL OGEE WASHERS

Hot Forged

For Bolts and Rods

Dia.	O. D.	I. D.	Thick.	Dia.	O. D.	I. D.	Thick.
1/2"	(2" x 9/16"	x 3/16")		1"	(4" x 1 1/8"	x 7/16")	
5/8"	(2 1/2" x 1 1/16"	x 1/4")		1 1/8"	(4 1/2" x 1 1/4"	x 7/16")	
3/4"	(3" x 13/16"	x 5/16")		1 1/4"	(5" x 1 3/8"	x 1/2")	
7/8"	(3 1/2" x 1"	x 3/8")					

## MONEL SPRING (LOCK) WASHERS

Kantlink Type

Made of K-Monel

Heat Treated

Standard Sizes

For Bolts and Screws

Dia.	Section	Dia.	Section	Dia.	Section
No. 6	(1/16" x 3/64")	1/4"	(3/32" x 1/16")	1/2"	(11/64" x 1/8")
No. 8	(5/64" x 3/64")	5/16"	(1/8" x 1/16")	5/8"	(13/64" x 5/32")
No. 10	(3/32" x 1/16")	3/8"	(1/8" x 3/32")		



## MONEL AND K-MONEL (SOLID) BALLS

In Diameters of

$\frac{1}{8}$ "	$\frac{1}{4}$ "	$\frac{1}{2}$ "	$\frac{7}{8}$ "	$1\frac{1}{8}$ "
$\frac{5}{32}$ "	$\frac{5}{16}$ "	$\frac{9}{16}$ "	$1\frac{5}{16}$ "	
$\frac{3}{16}$ "	$\frac{3}{8}$ "	$\frac{5}{8}$ "	1"	
$\frac{7}{32}$ "	$\frac{7}{16}$ "	$\frac{3}{4}$ "	$1\frac{1}{16}$ "	

## MONEL SASH CHAIN

(Similar to Standard Bronze and Steel Sash Chain)

In Sizes of

	No. 00	No. 0	No. 1	No. 2	No. 3
Width—	$\frac{1}{4}$ "	$1\frac{1}{32}$ "	$1\frac{1}{32}$ "	$1\frac{1}{32}$ "	$2\frac{3}{64}$ "
Thickness—	.035"	.028"	.035"	.042"	.060"

## MONEL MACHINE SCREWS

Upset Head—Rolled Threads

American National Standard Coarse Threads

In One-Gross Boxes

### FLAT HEAD

In Lengths of

Diameters															
4/36	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$											
6/32	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$						
8/32	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$					
*10/32	—	—	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{2}$		
10/24	—	—	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{2}$	3	
$\frac{1}{4}$ "—20	—	—	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{2}$	3	
$\frac{5}{16}$ "—18	—	—	—	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	—	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{2}$	3	
$\frac{3}{8}$ "—16	—	—	—	—	$\frac{5}{8}$	$\frac{3}{4}$	—	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{2}$	3	
$\frac{1}{2}$ "—13	—	—	—	—	—	—	—	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{2}$	3	

### ROUND HEAD

In Lengths of

Diameters															
2/56	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$												
3/48	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$										
4/40	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$												
4/36	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$											
6/32	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$					
8/32	—	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2		
*10/32	—	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$				
10/24	—	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{2}$	3
12/24	—	—	—	—	$\frac{1}{2}$	—	$\frac{3}{4}$	—	1	$1\frac{1}{4}$	$1\frac{1}{2}$	—	2	—	3
$\frac{1}{4}$ "—20	—	—	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{2}$	3
$\frac{5}{16}$ "—18	—	—	—	—	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{2}$	3
$\frac{3}{8}$ "—16	—	—	—	—	—	—	$\frac{3}{4}$	—	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{2}$	3

\*Fine Threads.



# INCO MONEL •

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## MONEL MACHINE SCREWS (Cont.) OVAL (FRENCH) HEAD

Diameters	In Lengths of									
6/32	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	
8/32	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"
*10/32	—	5/16"	3/8"	1/2"	5/8"	3/4"	—	1"	1 1/4"	
10/24	—	—	3/8"	1/2"	5/8"	3/4"	—	1"	1 1/4"	1 1/2"
1/4"—20	—	—	—	1/2"	5/8"	3/4"	—	1"	1 1/4"	1 1/2" 2"

## TRUSS HEAD

Diameters	In Lengths of									
6/32	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	—	1"		
8/32	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	—	1"		
*10/32	—	—	—	—	—	3/4"	—	1"	1 1/4"	
10/24	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"		
1/4"—20	—	—	—	1/2"	5/8"	3/4"	—	1"	1 1/4" 1 1/2" 1 3/4" 2"	

## FILLISTER HEAD

Diameters	In Lengths of									
6/32	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"			
8/32	1/4"	—	3/8"	1/2"	5/8"	3/4"	1"			
*10/32	1/4"	—	3/8"	1/2"	5/8"	3/4"	1"			
10/24	1/4"	—	3/8"	1/2"	5/8"	3/4"	1"			
1/4"—20	—	—	—	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"
5/16"—18	—	—	—	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"
3/8"—16	—	—	—	—	—	3/4"	1"	—	—	2"

\*Fine Threads

## MONEL SHEET METAL SCREWS

### Parker-Kalon Type Z

Self-Tapping  
In One-Gross Boxes

### ROUND HEAD

In Sizes of

No. 6 (.137") x 3/8" Long

No. 8 (.163") x 1/2" Long

No. 10 (.186") x 1/2" Long

No. 10 (.186") x 5/8" Long

Designed especially for joining and making fastenings to Sheet Monel, Brass, Bronze, Copper, Pure Nickel, Nickel Silver, Zinc, Aluminum and Die Castings, etc.

## MONEL FINISHING WASHERS

Countersunk Type

For Oval Head Screws

No. 6

No. 8

No. 10

No. 12

STOCK SHIPMENTS FOR ECONOMY



American National Standard  
In One-Gross Boxes

### Diameters

### In Lengths of

No. 4	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "																
No. 5	—	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	$\frac{7}{8}$ "	1"														
No. 6	—	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	$\frac{7}{8}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "												
No. 7	—	—	$\frac{5}{8}$ "	$\frac{3}{4}$ "	—	1"	$1\frac{1}{4}$ "	—	$1\frac{3}{4}$ "											
No. 8	—	—	—	$\frac{3}{4}$ "	$\frac{7}{8}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	—	2"										
No. 10	—	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	—	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	$1\frac{3}{4}$ "	2"	$2\frac{1}{2}$ "									
No. 12	—	—	—	$\frac{3}{4}$ "	—	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	—	2"	$2\frac{1}{2}$ "	3"	$3\frac{1}{2}$ "							
No. 14	—	—	—	—	—	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	$1\frac{3}{4}$ "	2"	$2\frac{1}{2}$ "	3"								
No. 16	—	—	—	—	—	—	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	$1\frac{3}{4}$ "	2"	$2\frac{1}{2}$ "	3"	$3\frac{1}{2}$ "							
No. 18	—	—	—	—	—	—	—	$1\frac{1}{2}$ "	$1\frac{3}{4}$ "	2"	2"	—	3"	$3\frac{1}{2}$ "						
No. 20	—	—	—	—	—	—	—	—	$1\frac{3}{4}$ "	—	$2\frac{1}{2}$ "	3"								

Diameters

## In Lengths of

[illegible]

### Diameters

### In Lengths of

No. 4	1/2"							
No. 6	1/2"	5/8"	3/4"	—	1"			
No. 7	1/2"	5/8"	3/4"	7/8"	1"			
No. 8	—	—	3/4"	7/8"	1"	1 1/4"	1 1/2"	
No. 9	—	—	3/4"	7/8"	1"	1 1/4"	1 1/2"	2"

(Continued on next page)



# INCO MONEL •

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## MONEL WOOD SCREWS (Cont.)

### ROUND HEAD (Cont.)

In Lengths of

Diameter									
No. 10	—	—	3/4"	—	1"	1 1/4"	1 1/2"	2"	2 1/2"
No. 12	—	—	3/4"	—	1"	1 1/4"	1 1/2"	2"	2 1/2"
No. 14	—	—	—	—	1"	1 1/4"	1 1/2"	—	2 1/2"

## MONEL LAG OR COACH SCREWS

### SQUARE HEAD—GIMLET POINT

In Lengths of

Diameter												
1/4"	1 1/2"	2"	2 1/2"	3"	—	4"						
5/16"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	—	5"				
3/8"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	—	5"				
1/2"	—	—	2 1/2"	3"	3 1/2"	4"	4 1/2"	5"	6"	7"	8"	
5/8"	—	—	—	—	—	4"	4 1/2"	5"	6"	7"	8"	
3/4"	—	—	—	—	—	—	—	5"	6"	7"	8"	

## MONEL HANGER SCREWS

With or Without Hexagon Nut

Prompt Shipment

In Lengths of

Diameter												
1/4"	2"	2 1/2"	3"									
5/16"	2"	2 1/2"	3"	3 1/2"	4"							
3/8"	—	—	3"	3 1/2"	4"	4 1/2"	5"	6"				
1/2"	—	—	3"	3 1/2"	4"	4 1/2"	5"	6"	7"	8"		
5/8"	—	—	—	—	4"	4 1/2"	5"	6"	7"	8"		
3/4"	—	—	—	—	—	—	5"	6"	7"	8"		

## MONEL CAP SCREWS

### HEXAGON HEAD

American Standard

In Lengths of

Diameter and Threads														
1/4"—20	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"	1 3/4"	2"			
5/16"—18	—	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"	1 3/4"	2"			
3/8"—16	—	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	3"	
7/16"—14	—	—	—	3/4"	—	1"	—	1 1/4"	1 1/2"	—	2"			
1/2"—13	—	—	—	3/4"	7/8"	1"	—	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	3"	
5/8"—11	—	—	—	—	—	—	—	1 1/4"	1 1/2"	1 3/4"	2"	2 1/2"	3"	
3/4"—10	—	—	—	—	—	—	—	—	1 1/2"	1 3/4"	2"	2 1/2"	3"	

Round Head, Flat Head and Fillister Head Cap Screws made to order quickly in sizes above, also lengths other than listed.



## MONEL SET SCREWS SQUARE HEAD—CUP POINT

Diameter and Threads	In Lengths of							
1/4" —20	3/8"	1/2"	5/8"	3/4"	1"			
5/16" —18	—	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	
3/8" —16	—	1/2"	—	3/4"	1"	1 1/4"	1 1/2"	2"
1/2" —13	—	—	—	3/4"	1"	1 1/4"	1 1/2"	2"
5/8" —11	—	—	—	3/4"	1"	1 1/4"	1 1/2"	2"

Set Screws with Dog, Pivot, Round or Cone Points made to order.

## MONEL "ALLEN" HOLLOW SET SCREWS CUP POINT

Diameter and Threads	In Lengths of							
8/32	3/16"	1/4"	5/16"	3/8"	1/2"			
10/32	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	
1/4" —20	—	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"
5/16" —18	—	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"
3/8" —16	—	—	—	—	1/2"	5/8"	3/4"	1" 1 1/4" 1 1/2"
1/2" —13	—	—	—	—	—	3/4"	1"	1 1/4" 1 1/2" 2"

## MONEL "ALLEN" SOCKET HEAD CAP SCREWS (PRESSUR-FORMED)

Diameter and Threads	In Lengths of							
1/4" —20	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"
5/16" —18	—	1/2"	5/8"	3/4"	—	1"	1 1/4"	1 1/2"
3/8" —16	—	—	—	3/4"	—	1"	1 1/4"	1 1/2"
1/2" —13	—	—	—	—	—	1"	1 1/4"	1 1/2" 2"
5/8" —11	—	—	—	—	—	—	1 1/4"	1 1/2" 2"

## MONEL TAPER PINS

Tapered 1/4" to the Foot

In Lengths of				In Lengths of			
1/2" to 4"—every 1/4"				3/4" to 6"—every 1/4"			
No.	Diameter Large End	No.	Diameter Large End	No.	Diameter Large End	No.	Diameter Large End
00	.141"	2	.193"	5	.289"	8	.492"
0	.156"	3	.219"	6	.341"	9	.541"
1	.172"	4	.250"	7	.409"	10	.706"





# INCO MONEL •

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## K-MONEL RUG POLE PINS

(Heat Treated) with Needle Points

(Especially adapted for Carpet Cleaning Plants)

1 $\frac{3}{8}$ " No. 12 (.102") Flat Head

(For Half Round Moulding)

2" No. 14 (.078") Double Point

(For Round Poles)

Special Steel Tools for inserting Double Pointed Pins also available.

## MONEL ESCUTCHEON PINS

(Round Head Wire Nails)

In One-Pound Boxes

In Lengths of

Diameter	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	$\frac{7}{8}$ "	1"	1 $\frac{1}{4}$ "
	Approximate		Number Per		Pound		
No. 18 S. G.	3000	2300	2100				
No. 16 S. G.	2200	1550	1300	1200	1100	950	
No. 14 S. G.	—	—	900	800	650	550	400
No. 13 S. G.	—	—	650	500	—	350	

## MONEL RIVETS

In One-Pound Boxes

ROUND HEAD

In Lengths of (in Inches)

Diameters														
$\frac{1}{16}$ "	$\frac{1}{8}$	—	$\frac{3}{16}$	$\frac{1}{4}$										
$\frac{3}{32}$ "	—	$\frac{5}{32}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$								
$\frac{1}{8}$ "	—	—	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	1 $\frac{1}{8}$		
$\frac{5}{32}$ "	—	—	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$								
$\frac{3}{16}$ "	—	—	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	1 $\frac{1}{8}$	1 $\frac{1}{4}$	1 $\frac{1}{2}$
$\frac{1}{4}$ "	—	—	—	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	1 $\frac{1}{8}$	1 $\frac{1}{4}$	1 $\frac{1}{2}$
$\frac{5}{16}$ "	—	—	—	—	—	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	—	1 $\frac{1}{4}$	1 $\frac{1}{2}$
$\frac{3}{8}$ "	—	—	—	—	—	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	—	1 $\frac{1}{4}$	1 $\frac{1}{2}$



## MONEL RIVETS (Cont.)

### COUNTERSUNK HEAD In Lengths of

Dia.												
$\frac{3}{32}$ "	$\frac{3}{16}$ "	$\frac{1}{4}$ "	$\frac{5}{16}$ "									
$\frac{1}{8}$ "	$\frac{3}{16}$ "	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	—	1"			
$\frac{5}{32}$ "	—	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "								
$\frac{3}{16}$ "	—	—	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	$\frac{7}{8}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	2"
$\frac{1}{4}$ "	—	—	—	—	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	—	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	$1\frac{3}{4}$ " 2"
$\frac{5}{16}$ "	—	—	—	—	—	$\frac{5}{8}$ "	$\frac{3}{4}$ "	—	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	2"
$\frac{3}{8}$ "	—	—	—	—	—	—	—	—	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	

### FLAT HEAD In Lengths of

Dia.										
$\frac{3}{32}$ "	$\frac{3}{16}$ "	$\frac{1}{4}$ "								
$\frac{1}{8}$ "	$\frac{3}{16}$ "	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	1"		
$\frac{5}{32}$ "	—	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "						
$\frac{3}{16}$ "	—	—	—	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	
$\frac{1}{4}$ "	—	—	—	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "
$\frac{5}{16}$ "	—	—	—	—	—	$\frac{5}{8}$ "	$\frac{3}{4}$ "	1"		

### BRAKE BAND In Lengths of

Diameters					
No. 8	$\frac{3}{8}$ "	$\frac{1}{2}$ "			
No. 9	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	$\frac{7}{8}$ "

### FLAT HEAD BELT RIVETS In Lengths of

Diameters						
No. 5	—	—	—	—	—	1"
No. 7	—	—	—	—	—	1" $1\frac{1}{4}$ "
No. 8	—	—	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	1" $1\frac{1}{4}$ "
No. 10	—	—	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	
No. 11	—	$\frac{3}{8}$ "				
No. 12	—	—	—	$\frac{5}{8}$ "		

### FLAT HEAD TINNERS' In Sizes of

$\frac{1}{2}$ lb. to M	$1\frac{1}{2}$ lb. to M	$3\frac{1}{2}$ lb. to M	8 lb. to M
$\frac{5}{8}$ lb. to M	$1\frac{3}{4}$ lb. to M	4 lb. to M	10 lb. to M
$\frac{3}{4}$ lb. to M	2 lb. to M	5 lb. to M	12 lb. to M
1 lb. to M	$2\frac{1}{2}$ lb. to M	6 lb. to M	
$1\frac{1}{4}$ lb. to M	3 lb. to M	7 lb. to M	



# INCO MONEL •

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## OVAL HEAD BRAZIER'S

In Sizes of

Nos. 00, 0, 1, 2, 3, 4

## WEIGHTS OF MONEL RIVETS

Round—\*Countersunk and Flat Heads  
In Diameters of

Diameters	1/16"	3/32"	1/8"	5/32"	3/16"	1/4"	5/16"	3/8"
			Approximate	Number	Per Pound			
1/8"	4500							
3/16"	3700	1250	640	—	250			
1/4"	3000	1100	585	—	225	90		
5/16"	—	985	465	370	200	84		
3/8"	—	870	448	340	180	78	46	30
1/2"	—	—	372	280	144	74	42	27
5/8"	—	—	322	—	130	65	38	25
3/4"	—	—	271	—	112	57	33	22
7/8"	—	—	230	—	100	50	30	20
1"	—	—	205	—	90	45	28	18
1 1/8"	—	—	170	—	83	42		
1 1/4"	—	—	—	—	75	38	24	16
1 1/2"	—	—	—	—	64	34	21	14
1 3/4"	—	—	—	—	—	30	19	12
2"	—	—	—	—	50	27	17	11

\*There are about 10% more Countersunk Head Rivets to the pound.

## FLAT HEAD MONEL CUT TACKS

In One-Pound Boxes

Length	Ounce	Approx. No. Per Pound	Length	Ounce	Approx. No. Per Pound	Length	Ounce	Approx. No. Per Pound
1/4"	2	5300	1/2"	6	1500	*1"	22	500
5/16"	2 1/2	3800	*5/8"	10	885	1 1/4"	26	280
3/8"	3	2850	*3/4"	14	810	1 1/2"	30	240
7/16"	4	1710	*7/8"	18	610			

\*Also carried in Oval Head.

## FLAT HEAD MONEL CUT NAILS

In 5-Pound Boxes and 100-Pound Kegs

### REGULAR TYPE

Size	Length	Approx. No. Per Pound	Size	Length	Approx. No. Per Pound
—	3/4"	570	6d	2"	92
—	7/8"	540	8d	2 1/2"	65
2d	1"	445	10d	3"	42
3d	1 1/4"	270	20d	4"	25
4d	1 1/2"	190			





## FLAT HEAD MONEL WIRE NAILS

In 5-Pound Boxes and 100-Pound Kegs

### COMMON NAILS

Size	Length	Stubs' Gauge	Approx. No. Per Pound	Size	Length	Stubs' Gauge	Approx. No. Per Pound
—	5/8"	16 (.065")	1400	6d	2"	10 (.134")	100
—	3/4"	16 (.065")	950	8d	2 1/2"	11 (.120")	85
—	7/8"	16 (.065")	825	10d	3"	9 (.148")	50
2d	1"	15 (.072")	775	16d	3 1/2"	8 (.165")	25
3d	1 1/4"	14 (.083")	525	20d	4"	6 (.203")	20
4d	1 1/2"	13 (.095")	275	30d	4 1/2"	5 (.220")	18
5d	1 3/4"	13 (.095")	200	40d	5"	4 (.238")	15
6d	2"	12 (.109")	175	60d	6"	2 (.284")	8

### SLATING NAILS

2d	1"	12 (.109")	250
3d	1 1/4"	11 (.120")	180
4d	1 1/2"	10 (.134")	125
6d	2"	10 (.134")	90
8d	2 1/2"	10 (.134")	80
10d	3"	9 (.148")	50

### FINISHING NAILS

2d	1"	16 (.065")	1200
3d	1 1/4"	15 (.072")	775
4d	1 1/2"	15 (.072")	530
6d	2"	13 (.095")	280
8d	2 1/2"	12 (.109")	180
10d	3"	11 (.120")	110

## FLAT HEAD ANCHORFAST (MONEL) WIRE NAILS

In 5 Pound Boxes and 100 Pound Kegs

### COMMON NAILS

Penny Size	Length	Gauge	Dec.	Approx. No. Per Pound	Penny Size	Length	Gauge	Dec.	Approx. No. Per Pound
—	5/8"	16	(.065")	1400	40d	5"	4	(.238")	15
—	3/4"	16	(.065")	950	60d	6"	6	(.284")	8
—	7/8"	16	(.065")	825	<b>SLATING NAILS</b>				
2d	1"	15	(.072")	775	2d	1"	12	(.109")	250
3d	1 1/4"	14	(.083")	525	3d	1 1/4"	11	(.120")	180
4d	1 1/2"	13	(.095")	275	4d	1 1/2"	10	(.134")	125
5d	1 3/4"	13	(.095")	200	6d	2"	10	(.134")	90
6d	2"	12	(.109")	175	8d	2 1/2"	10	(.134")	80
8d	2 1/2"	11	(.120")	85	10d	3"	10	(.134")	50
10d	3"	9	(.148")	50	<b>SIDING NAILS</b>				
16d	3 1/2"	8	(.165")	25	4d	1 1/2"	15	(.072")	495
20d	4"	6	(.203")	20	5d	1 3/4"	15	(.072")	430
30d	4 1/2"	5	(.220")	10					



# INCO MONEL •

NAILS

## FLAT HEAD ANCHORFAST (MONEL) WIRE NAILS

(Cont.)

In 5 Pound Boxes and 100 Pound Kegs

### BOAT NAILS

Penny Size	Length	Gauge	Dec.	Approx. No. Per Pound	Penny Size	Length	Gauge	Dec.	Approx. No. Per Pound
2d	1"	12	(.109")	350	6d	2"	10	(.134")	105
3d	1 1/4"	12	(.109")	280	6d	2"	8	(.165")	75
4d	1 1/2"	14	(.072")	400	7d	2 1/4"	10	(.134")	94
4d	1 1/2"	12	(.109")	230	7d	2 1/4"	8	(.165")	64
4d	1 1/2"	10	(.134")	135	8d	2 1/2"	10	(.134")	84
4d	1 1/2"	8	(.165")	95	8d	2 1/2"	8	(.165")	58
5d	1 3/4"	10	(.134")	120	10d	3"	8	(.165")	48
5d	1 3/4"	8	(.165")	83					

## MONEL WIRE STAPLES

In One-Pound Boxes

For Screen Cloth, Wire Cloth and General Purposes

Length	Stubs' Gauge	Approx. No. Per Pound	Length	Stubs' Gauge	Approx. No. Per Pound	Length	Stubs' Gauge	Approx. No. Per Pound
3/8"	18	1200	5/8"	16	625	7/8"	15	350
3/8"	16	950	3/4"	16	550	1"	13	150
1/2"	16	700	3/4"	14	350	1 1/4"	14	200

## MONEL WIRE BRADS

In One-Pound Boxes

Length	Stubs' Gauge	Approx. No. Per Pound	Length	Stubs' Gauge	Approx. No. Per Pound
3/4"	17 (.058")	1300	1"	16 (.065")	750

## MONEL WIRE CLOTH

Market Grades

For Industrial Purposes  
All 36" Wide

Mesh	Opening	Dia. Wire	Mesh	Opening	Dia. Wire	Mesh	Opening	Dia. Wire
*2	.437"	.063"	14	.051"	.020"	40	.0155"	.0095"
4	.209"	.041"	*16	.044"	.018"	50	.012"	.008"
6	.139"	.032"	18	.039"	.016"	60	.010"	.0065"
8	.097"	.028"	20	.035"	.015"	80	.0068"	.0057"
10	.075"	.025"	24	.029"	.012"	100	.0055"	.0045"
12	.060"	.023"	30	.022"	.011"	120	.0046"	.0037"

\*Also carried in: 24" widths.

Many of these same Meshes, made of lighter or heavier wires, are available in Mill Stock.

Fine Meshes over 120 Mesh are available for shipment from Mill Stock immediately.

Monel Insect Screen Cloth in 100 Foot Rolls.

16 Mesh and 18 Mesh—.009" Wire 24" to 48" (Every Two Inches).



## MONEL TILLER ROPE

Composed of 6 Individual Ropes Laid Around a Hemp Center 6 x 7  
(252 Wires)

Diameter in Inches	Cir. in Inches	Approx. Weight per Foot	Dia. of Drum or Sheave in Ins. Advised	Approx. Strength in Tons, 2000 lbs.	Proper Working Load in Tons of 2000 lbs.
3/16	1/2	—	—	—	—
1/4	3/4	.075	6	1.0	.20
5/16	1	.115	7 1/2	1.5	.30
3/8	1 1/8	.175	9	2.2	.44
7/16	1 1/4	.23	10 1/2	3.0	.60
1/2	1 1/2	.30	12	3.9	.78

1/8" also carried in Stock, but is actually composed of 6 Strands—19 Wires each with Hemp Centers as this Construction makes a more Flexible Rope in these Smaller Sizes.

Other Sizes and Constructions Made to Order.

## MONEL SASH CORD

Composed of 6 Strands of 7 Wires Each with Hemp Center (6 x 7)

Diameter in Inches	Cir. in Inches	Approx. Weight per Foot	Dia. of Drum or Sheave in Inches Advised	Approx. Strength in Tons, 2000 lbs.	Proper Working Load in Tons of 2000 lbs.
1/16	3/16	.077	.5	.100	.020
3/32	1/4	.015	.6	.225	.045
1/8	3/8	.029	.75	.400	.080
5/32	7/16	.043	.90	.660	.132
3/16	1/2	.065	1.00	.900	.180
7/32	5/8	.085	1.25	1.260	.252
1/4	3/4	.115	1.50	1.600	.320

## MONEL HOISTING CABLE

Composed of 6 Strands of 19 Wires Each with Hemp Center (6 x 19)

Diameter in Inches	Cir. in Inches	Approx. Weight per Foot	Dia. of Drum or Sheave in Feet Advised	Approx. Strength in Tons, 2000 lbs.	Proper Working Load in Tons of 2000 lbs.
3/16	1/2	.065	1.25	.9	.18
1/4	3/4	.115	1.50	1.5	.30
5/16	1	.160	2.00	2.4	.48
3/8	1 1/8	.235	2.25	3.5	.70
1/2	1 1/2	.420	3.00	6.2	1.20
5/8	2	.670	4.	9.7	1.90
3/4	2 1/4	.960	4.5	13.9	2.80

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# INCO NICKEL •

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## PURE NICKEL MACHINE BOLTS

Hexagon Head with Hexagon Nut  
In Lengths of

Diameter and Threads	In Lengths of							
1/4" —20	1 1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	
5/16" —18	—	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	
3/8" —16	—	—	3/4"	1"	1 1/4"	1 1/2"	2"	
1/2" —12	—	—	—	1"	1 1/4"	1 1/2"	2"	2 1/2" 3" 3 1/2" 4"
5/8" —11	—	—	—	1"	1 1/4"	1 1/2"	2"	2 1/2" 3" 3 1/2" 4"
3/4" —10	—	—	—	—	—	—	2"	2 1/2" 3" 3 1/2" 4"

## PURE NICKEL HEXAGON NUTS

For Bolts and Rods  
In Sizes of

1/4" —20	5/16" —18	3/8" —16	1/2" —13	5/8" —11	3/4" —10
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## PURE NICKEL FLAT WASHERS

For Bolts and Rods

Size of Bolt	Outside Diameter	Inside Diameter	Thickness	Size of Bolts	Outside Diameter	Inside Diameter	Thickness
3/16"	1/2"	13/64"	.037"	1/2"	1 3/8"	9/16"	.062"
1/4"	5/8"	9/32"	.050"	5/8"	1 5/8"	1 1/16"	.093"
5/16"	3/4"	3/8"	.050"	3/4"	2"	1 3/16"	.093"
3/8"	1"	7/16"	.062"				

## PURE NICKEL CAP SCREWS

HEXAGON HEAD  
American Standard  
Coarse Threads

Diameter and Threads	In Lengths of					
1/4" —20	1 1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"
5/16" —18	—	5/8"	3/4"	1"	1 1/4"	1 1/2"
3/8" —16	—	—	3/4"	1"	1 1/4"	1 1/2"
1/2" —13	—	—	—	1"	1 1/4"	1 1/2" 2"

Round, Flat and Fillister Head Cap Screws can be produced promptly.

## PURE NICKEL SET SCREWS

SQUARE HEAD—CUP POINT  
U. S. S. Threads

Diameter and Threads	In Lengths of			
1/4" —20	1 1/2"	3/4"		
3/8" —16	—	3/4"	1"	1 1/4"
1/2" —13	—	—	—	1 1/4" 1 1/2" 2"



## PURE NICKEL RIVETS

In One-Pound Boxes  
**ROUND HEAD**  
In Lengths of

Diameters									
1/8"	3/16	1/4"	3/8"	1/2"	5/8"				
3/16"	—	—	3/8"	1/2"	5/8"	3/4"	1"		
1/4"	—	—	—	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"
5/16"	—	—	—	—	—	—	1"	1 1/4"	1 1/2"
3/8"	—	—	—	—	—	—	1"	1 1/4"	1 1/2"

## COUNTERSUNK HEAD

In Lengths of

Diameters									
1/8"		1/4"	3/8"	1/2"					
3/16"		—	3/8"	1/2"	5/8"	3/4"	1"		
1/4"		—	—	—	—	3/4"	1"	1 1/4"	1 1/2"

## FLAT HEAD TINNERS'

In Sizes of

1 lb. to M	2 lb. to M	4 lb. to M	8 lb. to M
1 1/4 lb. to M	2 1/2 lb. to M	5 lb. to M	10 lb. to M
1 1/2 lb. to M	3 lb. to M	6 lb. to M	

Sizes of Pure Nickel Accessories not listed here can be produced promptly depending upon the specifications.

## AVAILABLE LITERATURE

- T-1 Monel Bolts
- T-2 Welding, Brazing and Soft Soldering of Monel, Nickel & Inconel
- T-3 Monel in Sulfuric Acid
- T-5 Engineering Properties of Monel
- T-6 Caustic Alkalies vs. Nickel and Its Alloys
- T-7 Properties and Uses of Inconel
- T-9 Engineering Properties of K Monel
- T-10 Corrosion Testing Methods
- T-11 Forging Monel, Nickel and Inconel
- T-12 Machining Monel, Nickel and Inconel
- TS-4 Pickling Monel, Nickel and Inconel
- TS-5 Grinding, Polishing, Buffing Monel and Nickel
- Deep Drawing and Punching Monel and Nickel
- Monel and Nickel in the Chemical Industries
- Strength Plus (Mechanical Field)

Write for any of the above booklets. A complete list of Monel and Nickel literature available, List B, will be sent upon request.

PAPER

MONCKEY  
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# **SPECIAL MATERIALS SECTION**

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**Includes**

**WELDING and BRAZING MATERIALS  
HEAD and EYE PROTECTION EQUIPMENT  
INGOT and SHOT FOR FOUNDRY USE  
CASTINGS  
WIRE CLOTH PRODUCTS  
LUKENS CLAD STEEL  
ZINC and LEAD PRODUCTS  
RANGE BOILERS and HEATERS  
MISCELLANEOUS MATERIALS**



*Production Plant,  
Handy and Harman,  
Bridgeport, Conn.*

# **SPECIAL MATERIALS SECTION**

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<b>Head and Eye Protection Equipment.....</b>	<b>204</b>
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# • WELDING AND BRAZING

## WELDING AND BRAZING MATERIALS AND ACCESSORIES



### "ALCOA WELDING RODS"

#### ALUMINUM WELDING WIRE

(5% Silicon-Caustic Dipped)

For General Acetylene Welding all commercial Aluminum Alloys where fluidity is desirable. Use Alcoa No. 22 Flux.

36" Lengths in Diameters of

$\frac{1}{16}$ "     $\frac{3}{32}$ "     $\frac{1}{8}$ "     $\frac{3}{16}$ "     $\frac{1}{4}$ "

Coils in Diameters of

$\frac{3}{32}$ "     $\frac{1}{8}$ "     $\frac{5}{32}$ "     $\frac{3}{16}$ "     $\frac{1}{4}$ "

#### 2 S SOFT WELDING WIRE

For Acetylene Welding 2S and 3S Aluminum Alloys. Use Alcoa No. 22 Flux.

36" Lengths in Diameters of

$\frac{1}{8}$ "     $\frac{3}{16}$ "     $\frac{1}{4}$ "

#### No. 22 ALUMINUM WELDING FLUX

For the welding of all Aluminum. Stocked in 1 and 5 lb. jars.

#### ALUMINUM WELDING ELECTRODES

(Flux Coated)

For Electric Welding All Commercial Aluminum Alloys

In 1 lb. Packages (15" Lengths) in Diameters of

$\frac{1}{8}$ "     $\frac{3}{16}$ "     $\frac{1}{4}$ "

Write for Booklet "The Welding of Aluminum."



### INCO WELDING RODS

#### MONEL No. 40

A bare Rod for Oxy-Acetylene welding of Monel used with Monel Gas Welding and Brazing Flux.

36" Lengths in Diameters of

$\frac{1}{16}$ "     $\frac{3}{32}$ "     $\frac{1}{8}$ "     $\frac{5}{32}$ "     $\frac{3}{16}$ "





# WELDING AND BRAZING •

## **MONEL No. 130X**

Flux Coated Metallic Arc Welding Rod. For Metallic Arc Welding of Monel, of Monel to Steel and Nickel to Steel.

18" Lengths in Diameters of

$.075''$        $\frac{3}{32}''$        $\frac{1}{8}''$        $\frac{5}{32}''$        $\frac{3}{16}''$



## **NICKEL No. 32**

Bare Rod for Oxy-Acetylene Welding of Nickel.

36" Lengths in Diameters of

$\frac{3}{32}''$        $\frac{1}{8}''$

## **NICKEL No. 131**

Flux Coated Metallic Arc Welding Rod. For Electric Welding Solid Nickel Products.

18" Lengths in Diameters of

$\frac{3}{32}''$        $\frac{1}{8}''$        $\frac{5}{32}''$        $\frac{3}{16}''$

## **NICKEL No. 135**

Flux Coated Metallic Arc Welding Rod for welding Nickel side of Nickel Clad Steel.

18" Lengths in Diameters of

$\frac{3}{32}''$        $\frac{1}{8}''$        $\frac{5}{32}''$        $\frac{3}{16}''$

## **INCONEL No. 42**

Bare Rod for Oxy-Acetylene Welding of Inconel and Inconel side of Inconel Clad Steel. Use with Inconel Gas Welding Flux.

36" Lengths in Diameters of

$\frac{1}{16}''$        $\frac{3}{32}''$        $\frac{1}{8}''$        $\frac{5}{32}''$



## **INCONEL No. 132**

A Flux coated Metallic Arc Welding Rod for Electric Welding of Inconel.

18" Lengths in Diameters of

$\frac{3}{32}''$        $\frac{1}{8}''$        $\frac{5}{32}''$

## **INCO GAS WELDING FLUX**

For Gas Welding of Monel, Nickel and Inconel. Available in One-Pound Cans.

Write for booklets, "Gas Welded and Brazed Joints for High Nickel Alloys" and T-2, "Welding, Brazing and Soft Soldering of Monel, Nickel and Inconel"

# • WELDING AND BRAZING

## "ANACONDA" WELDING RODS

### TOBIN BRONZE



A Bronze Rod for Oxy-Acetylene Welding of Copper Alloys, Nickel Alloys, Steel, Cast Iron and Malleable Cast Iron.

Tobin Bronze Welding Rod is used where high strength welds are required. It melts at a low temperature and the parts to be welded require no extensive preheating. Use No. 2 Brazing Flux.

36" Lengths in Diameters of  $\frac{1}{8}$ "  $\frac{3}{16}$ "  $\frac{1}{4}$ "

### SILICON COPPER

A Welding Rod containing 99.70 Copper and .25 Silicon, for Oxy-Acetylene or Carbon Arc Welding of Copper and Steel.

36" Lengths in  $\frac{3}{16}$ " Diameter

### GRADE "D"—PHOSPHOR BRONZE

A special Welding Rod for either Oxy-Acetylene or Carbon Arc Welding. High in Copper and containing enough Tin (10.5%) to improve the strength and flowing properties and sufficient Phosphorus to make it fluid at a temperature slightly below the melting point of Copper.

36" Lengths in Diameters of  $\frac{3}{32}$ "  $\frac{1}{8}$ "  $\frac{5}{32}$ "  $\frac{3}{16}$ "  $\frac{1}{4}$ "

### MANGANESE BRONZE

A Bronze Welding Rod for Oxy-Acetylene Welding of Copper Alloys and Cast Iron. Manganese Bronze will melt at a slightly lower temperature than Tobin Bronze and produces a tough, strong bond which has unusual resistance to wear.

36" Lengths in Diameters of  $\frac{3}{16}$ "  $\frac{1}{4}$ "

### EVERDUR BRONZE



For Oxy-Acetylene and Metallic Arc Welding. It is an alloy composed of Copper, Silicon and Manganese and has excellent welding characteristics. It alloys readily with Copper, Brass, Bronze and the Copper Nickel Alloys, making welds of exceptionally high strength.

36" Lengths in Diameters of  $\frac{3}{32}$ "  $\frac{1}{8}$ "  $\frac{5}{32}$ "  $\frac{3}{16}$ "  $\frac{1}{4}$ "

Welding Protection Equipment, such as Goggles, Helmets, Masks and Glasses, will be found on page 204.

Write us for booklets B-13, "Anaconda Welding Rods" and E-4, "Everdur Metal—Welding Properties and Methods of Procedure."

# WELDING AND BRAZING •



## \* "SIL-FOS" BRAZING ALLOY

### AN IMPORTANT DISCOVERY FOR LOW TEMPERATURE BRAZING

(For brazing Brass, Bronze, and other non-ferrous alloys with High Copper content)

SIL-FOS contains about 15% Silver and flows freely at 1300° F. This is 300° to 800° lower than brass and bronze brazing or welding rods or spelter. Joints properly made are stronger than the metals joined and stand up under heavy shocks and continued vibration. The low melting point of SIL-FOS also prevents embrittlement of the metal next to the joint which takes place at higher temperatures. Laboratory tests show that SIL-FOS has corrosion resistance equal to or greater than the Brass and Copper Alloys on which it is commonly used. SIL-FOS solves brazing problems for those who want better joints at low cost. SIL-FOS is carried in the following forms:

#### STRIPS 20" LONG

Size		Approx. Length Per Lb.
$\frac{1}{32}$ " x $\frac{1}{32}$ "	—	3354 inches
$\frac{1}{32}$ " x $\frac{1}{16}$ "	—	1677 "
.050" x $\frac{1}{16}$ "	—	1048 "
.050" x $\frac{1}{8}$ "	—	524 "

#### STRIP IN COILS

Thickness	Approx. Area Per Lb.
*.005	656 sq. in.
*.010	328 sq. in.
*.025	132 sq. in.

\*In widths of  $\frac{1}{4}$ " or more.

#### WIRE IN COILS

Thickness	Approx. Length Per Lb.
$\frac{1}{32}$ "	4272 in.
$\frac{3}{64}$ "	1900 in.
$\frac{1}{16}$ "	1068 in.
$\frac{3}{32}$ "	475 in.

#### RODS 36" LONG

$\frac{1}{8}$ " Square—210 inches per lb.

## \*"EASY-FLO" BRAZING ALLOY

### A NEW LOW MELTING SILVER BRAZING ALLOY

(For brazing all ferrous and non-ferrous metals including Monel, Nickel and Inconel.)

"EASY-FLO" brazing alloy is free flowing at 1175° F., which is the lowest melting point yet developed for any brazing alloy having a high degree of strength and ductility. Butt joints made with EASY-FLO have a tensile strength of 40,000 to 120,000 lbs. per sq. inch, depending on the metals joined. All joints are

\*Patented in U. S. A.

MONEL  
&  
NICKEL



## ● WELDING & BRAZING

### "EASY-FLOW" BRAZING ALLOY (Cont.)

ductile and will withstand shock and vibration. Under most conditions, EASY-FLO shows marked corrosion-resisting properties that compare favorably with other silver brazing alloys.

EASY-FLO is carried in the following sizes:

#### WIRE IN COILS

Diameter	Approx. Length Per Troy Oz.
1/32"	264 in.
3/64"	116 in.
1/16"	66 in.
3/32"	29 in.

#### STRIP IN COILS

Thickness	Appr. Area Per Troy Oz.
*.003"	67 sq. in.
*.005"	40 sq. in.
*.010"	20 sq. in.
*.020"	10 sq. in.

\* In Widths 1/4" or more.

### "HANDY" SILVER SOLDERS

#### \*\* RIBBON

3/4" Wide—.003" and .004" Thick—One-Ounce Coils

#### \*\* STRIP

1/8" to 1/2" Wide—1/32" to 1/8" Thick—12" to 24" Long

#### \*\* WIRE

1/16" to 1/4" Diameter in Coils

\*\*Above Forms are available in the following grades and colors.

Brass Yellow

"TL" "ATT"

Pale Yellow

"NT" "SS" "DT"

Yellow White

"DE" "ET" "ETX"

Silver White

"RT" "BT" "IT"

#### \*HANDY FLUX

—Always use it with Sil-Fos and Easy-Flo. It is liquid and active at 1100° F.—does a better job of dissolving oxides—and lets you take full advantage of the low flow points of these low temperature alloys.

Carried In

1/2 lb.—1 lb.—5 lb. Jars

A Descriptive Booklet, "How to Use 'Handy' Solders," also Pamphlets concerning "Sil-Fos," "Easy-Flow" Brazing Alloys and Handy Flux will be sent upon request.

\*Patented in U. S. A.

# WELDING AND BRAZING •

## HOLTITE BRAZING SOLDER



Holtite Brazing Solder, sometimes known as "spelter" solder, is available in three colors and in a wide variety of grain sizes and types. The size and type of the grain best suited to any particular application is best determined by actual experience as the human element is an important feature in brazing. However, we will gladly submit suggestions based on knowledge accumulated during more than a quarter century of metal service.

### In One-Pound Boxes and 50, 100 and 250-pound cases

Number	Grain	Size	Color	Melting Point	
				°C	°F
40	Round	Extra Fine	Yellow	882	1620
41	Round	Fine	Yellow	882	1620
42	Round	Medium Fine	Yellow	882	1620
43	Round	Medium Coarse	Yellow	882	1620
44	Round	Coarse	Yellow	882	1620
45	Round	Extra Coarse	Yellow	882	1620
*61	Round	Fine	Gray	813	1495
*62	Round	Medium Fine	Gray	813	1495
100	Long	Extra Fine	Yellow	882	1620
101	Long	Fine	Yellow	882	1620
103	Long	Medium Fine	Yellow	882	1620
105	Long	Coarse	Yellow	882	1620

\* In one-pound boxes only.

## BRASS BRAZING WIRE IN COILS

In Diameters of

$\frac{1}{16}$ "    $\frac{3}{32}$ "    $\frac{1}{8}$ "    $\frac{5}{32}$ "    $\frac{3}{16}$ "    $\frac{1}{4}$ "



## PURE BLOCK TIN

In 1½-Pound Bars

## ALCOA GRADE "T" ALUMINUM SOLDER

In 20-Inch Sticks—¼ Lb. Each

Diameter .252"

## GRADE "A" ALUMINUM SOLDERING FLUX

In ½-Lb. Cans

# ● WELDING AND BRAZING

## HALF AND HALF BAR SOLDER

(Tin and Lead)

In 100-Pound and 250-Pound Cases or Less

### ABOUT 1½-POUND BARS

Whitehead's Best	50% Tin	50% Lead
Whitehead's Warranted	48% Tin	52% Lead
Whitehead's Monogram	46% Tin	54% Lead
Whitehead's Wiping	40% Tin	60% Lead

### ABOUT 5-POUND BARS

Whitehead's Wiping	40% Tin	60% Lead
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### ABOUT ¾-POUND BARS

Whitehead's Boston Bars	50% Tin	50% Lead
Whitehead's Capping Bars	50% Tin	50% Lead

## HALF AND HALF WIRE SOLDER

On 25 or 50 Lb. Spools

Size: ⅛" Diameter

Mixtures {	50% Tin—50% Lead
	48% Tin—52% Lead
	40% Tin—60% Lead

## FORGED SOLDERING COPPERS

### POINTED PATTERN

In Pounds per Pair

¾ lb.	2 lbs.	4 lbs.	8 lbs.
1 lb.	2½ lbs.	5 lbs.	10 lbs.
1½ lbs.	3 lbs.	6 lbs.	12 lbs.

### ROOFING PATTERN

With Handles and Shields

In Pounds per Pair

8 lbs.	10 lbs.	14 lbs.
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## SOLDERING COPPER HANDLES (WOOD)

### FERRULED

No. 1 Size—For ¾ lb. to 2 lb. per pair

### HYRO "SHUR-GRIP" TYPE (Patented)

No. 7 Size—For 1½ lb. to 4 lb. per pair

No. 8 Size—For 4 lb. to 8 lb. per pair

No. 9 Size—For 8 lb. to 12 lb. per pair



# HEAD & EYE PROTECTION •

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## "CESCO" HEAD AND EYE PROTECTION

### INDUSTRIAL GOGGLES

Cup Type — Dust Type — Helmet Type  
Spectacle Type — Welding Type

### HELMETS

Welding Helmets  
Sand Blast Helmets

### SHIELDS

Welder's Hand Shields  
Observation Shields  
Spark Shields  
Acme and Apex Shields  
Industrial Eye Shades

### MASKS

Tunnel Masks  
Babbitting Masks  
Furnace Masks  
Ammonia Canister Masks

### RESPIRATORS

Chemical Cartridge Respirators  
Filter Respirators  
Industrial Respirators

### WELDING GLASS

In various shades for Acetylene and Electric Welding  
Extra Lenses for all the above Goggles, Helmets and Masks

A supply of Replacement Parts is also available for the above equipment.  
We have a full and complete assortment consisting of 200 items of Safety Equipment on hand.

Welding and Brazing Materials will be found on pages 197 to 203, inc.

Send for detailed information about Head and Eye Protection. We will help you to select the proper equipment.

## ● FOUNDRY SECTION

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### INGOT AND SHOT FOR FOUNDRY USE



#### METALS AND ALLOYS

For the Production of Quality Castings including Special Metals used in Alloying Grey Iron Steel and Non-Ferrous Mixtures.

#### MONEL SHOT

In Approx. 500-Pound Kegs

#### MONEL INGOTS

In 5 and 25-Pound Sizes

and

#### GRADE "C" NICKEL INGOTS

In 5 and 25-Pound Sizes

For Production of Monel and Nickel Castings

#### GRADE "F" NICKEL SHOT AND INGOT

In Approx. 500-Pound Kegs

(Smaller Lots if Desired)

Also 5-Pound Pigs (For Cupola Additions)

A special grade Shot recommended for making additions to Cast Iron. The Melting Point of "F" Nickel is sufficiently under that of Cast Iron as ordinarily poured, to insure its complete solution when added to the Ladle or Cupola Spout.

Foundry Engineers in our employ are available for consultation on foundry problems involving the use of **NICKEL in IRON, BRASS, ALUMINUM CASTINGS.**

#### GRADE "XX" NICKEL SHOT

Made from Remelted Cathodes

In Approx. 500-Pound Kegs

Used in the manufacture of Heat Resistant Alloys, Ferro-Nickel Alloys, Nickel Silver, Cupro-Nickel, Nickel Bronze, Etc., and in the production of Nickel Steel by the crucible method of melting.

#### ELECTROLYTIC NICKEL SQUARES

In Approx. 500-Pound Kegs

Cathodes — 27" x 36" — Squares — 1" x 1" — 4" x 4" — 9" x 9"

Electrolytic Nickel is Carbon Free and contains only a trace of Sulphur. It is the purest form of Nickel produced in commercial quantities. It is used principally for Alloying with Steel and production of Nickel Silver and Pure Nickel Castings. Other sizes than above made to order specially.

# FOUNDRY SECTION •

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## QUICK MELTING ELECTROLYTIC NICKEL SQUARES

1" Square, 1/16" to 1/8" Thick

Especially adapted for introduction of Nickel in Bronze mixtures to obtain pressure tightness, closer grain refinement and improved strengths, and better machinability.

## NICKEL-COPPER CHROMIUM PIGS

(N. C. C.)

In Approx. 5-Pound Size

Especially prepared and of proper analysis for ease in production of Ni-Resist Cast Iron in Cupola, Electric or Oil-Fired Furnaces. Ni-Resist is a corrosion and heat resistant material widely used in industry.

## COPPER-NICKEL SHOT

(50-50 Mixture)

In Approx. 500-Pound Kegs

(Smaller Lots if Desired)

Widely used to introduce Nickel into Brass and Bronze Alloys because its melting point (approximately 2200° F.) is lower than the primary metals and rate of absorption under average foundry conditions is improved. Addition of Nickel to Bronze in amounts up to 3.00% increases density, tensile strength, pressure tightness and machinability.



## SPECIAL ALLOYS

AMBRAC METAL

(About 20% Nickel)

In about 5-Pound Ingots

(Average Size 1 1/8" x 3 1/2" x 5")

An Alloy of Copper, Nickel and Zinc, having a bright nickel appearance, remarkable physical properties and a very high resistance to general corrosion.

BENEDICT METAL

(About 12 1/2% Nickel)

In about 5-Pound Ingots

This Alloy is of the same general character as Ambrac Metal except that the Nickel Content is somewhat lower.

Information pertaining to Special Alloys will be sent upon request.

## FERRO ALLOYS

FERRO-CHROMIUM

(High Carbon—60%-70% Chrome Content)

Available Forms . . . 8, 12 and 20 Mesh . . . Ground and Lump

Also in Briquets of Approx. 3 3/8 Pounds (With 2 Pounds Chromium Content)

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STOCK SHIPMENTS FOR ECONOMY



## ● FOUNDRY SECTION

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### FERRO ALLOYS (Cont.)

#### FERRO-SILICON

Available Forms . . . 8 and 12 Mesh and Egg Size (with 94% Silicon Content)  
Also in Briquets of Approx. 5 lb. size (with 2 lbs. Silicon Content) and  
2½ lb. size (with 1 lb. Silicon Content)

#### FERRO-MANGANESE

Available Forms . . . Lump and Ground (with 80% Manganese Content)  
Also in Briquets of Approx. 3½ Pounds (with 2 Pounds Manganese and  
½ Pound Silicon Content)

#### FERRO MOLYBDENUM

Available Forms . . . Ground 20 Mesh and down (with 61% Molybdenum  
Content)

The above Ferro Alloys are used in Grey Iron Foundries in connection with "F" Nickel Shot for improvement in quality of Grey Iron.

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We maintain a staff of practical foundry engineers who are prepared to make recommendations and assist you in the use of all Nickel and Ferro alloys.

We have prepared a concise handbook dealing with the production and properties of the many types of improved cast iron currently available. This publication, "Nickel Cast Iron Reference Book," is available to qualified foundry engineers.

# INCO CASTINGS •

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## INCO CASTINGS

**MONEL — NICKEL — INCONEL**

**"H" MONEL — "S" MONEL**

Castings of the Inco metals are obtained from the modern and well equipped foundry of the International Nickel Co. at Bayonne, N. J. All castings in the above metals are made in accordance with specifications and can be obtained as sand castings or centrifugal castings. Centrifugal castings can be supplied either Finished or Rough Machined and sizes available are from 2½ in. I.D. to 19 in. O.D. by 144 in. long depending on diameters and wall thickness.

This plant also maintains a pattern shop where patterns can be made to your requirements or any necessary changes made on present pattern equipment. For customers' convenience, a machine shop is also maintained. If patterns are supplied, a check should be made to see that they have the proper shrinkage allowance—¼ in. per foot. Cast sections in general should be 3/16 in. minimum. Finish allowances for machining should be 1/16 in. greater than for brass or cast iron.

For estimating purposes it will be necessary to supply detailed drawings or sample castings and information on the type of pattern equipment available (i.e., loose pattern, gated, or plated patterns).

## ● WIRE CLOTH

### "JELLIFF" WIRE CLOTH PRODUCTS

ALUMINUM — BRASS — COMMERCIAL BRONZE  
PHOSPHOR BRONZE — COPPER — MONEL  
PURE NICKEL — NICHROME — STAIN-  
LESS STEEL — IRON — STEEL



Wire Cloth — Screen Cloth — "Jelliff Selvedge" —  
Heavy Wire Screen Cloth — Strainer Cloth —  
Gasketed Metallic Filter Cloth — Dipping Baskets



#### SPECIAL PRODUCTS

Conductor Strainers — Wire Guards — Skylight Guards  
— Framed Screens — Turpentine and Solution Skim-  
mers — Special Screen Wire Parts — Riddles — Sieves



#### LEKTROMESH

A new WIRE-LESS Metal Mesh made Electrolytically

Years ago the C. O. Jelliff Manufacturing Corporation foresaw the need for such a filtering medium and assigned research engineers to develop this metal mesh. Their efforts crowned with success far beyond their expectations, Jelliff is proud to offer industry the revolutionary wire mesh—Lektromesh.

Lektromesh is made by depositing electrolytically any virgin metal to form a design which can then be had in continuous sheets of any necessary length, in standard wire mesh widths and in varying thicknesses.

Commercially, Lektromesh has been produced in sizes 25 to 400 mesh. "Wire Sizes" have ranged from what in round woven wire would be .0008" to .025" in diameter. Thickness can be varied to suit conditions.

Screen has been made so far in rolls up to 22" wide and up to 1400 feet in length. Theoretically, there is no limit to the length of rolls supplied.

Lektromesh has been produced in Nickel, Copper and other metals, with Nickel offering an exceptionally wide range of possibilities because of its corrosion resistance, its high mechanical properties and its superior electroplating characteristics.

*Send for Descriptive Pamphlet and Sample.*



Copper and Bronze Insect Screen Cloth—Standard Sizes. See Pages 145, 146. For Wire Cloth (Market Grades) carried in our Warehouse Stocks, refer to the following pages: Brass—Page 94; Bronze and Copper—Pages 145 and 146; Monel—Page 192. Other Meshes of All Standard Weaves available for shipment from the Mill immediately.

*Send for illustrated "Jelliff" Wire Cloth Catalog*



# LUKENS-CLAD STEEL •

## LUKENS NICKEL-MONEL & INCONEL-CLAD STEEL SHEETS AND CIRCLES

A Commercially Economical Corrosion-Resisting Bi-Metal With a Surface of Pure Nickel, Monel or Inconel Sheet and a base of Steel Plate Hot Rolled Together, Making a Perfect Bond.

\*(The Cladding Constitutes from 10% to 20% of the Total Thickness of the Plate)

### THICKNESSES, WIDTHS, LENGTHS AND DIAMETER OF CIRCLES IN INCHES

		THICKNESS												
Widths		3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	11/16"	3/4"	7/8"	1"	
48"		480	480	480	480	480	480	480	480	480	480	420	335	
60"		470	480	480	480	480	480	480	480	480	450	380	335	
66"		425	480	480	480	480	480	480	480	445	410	350	305	
72"		390	480	480	480	480	480	480	450	405	375	320	280	
78"		360	480	480	480	480	480	460	410	375	345	290	260	
84"		335	480	480	480	480	480	425	380	350	320	270	240	
90"		315	440	480	480	480	440	390	350	325	300	250	220	
96"	Lengths in Inches	290	410	480	480	445	385	345	310	280	260	220	195	
102"		275	385	480	480	420	365	325	290	265	245	210	180	
108"		260	365	480	460	395	345	305	275	250	230	195	170	
114"		250	345	470	435	375	325	290	260	235	215	185	160	
120"		...	330	450	415	355	310	275	250	225	205	175	155	
126"		...	315	430	395	340	295	260	235	215	195	170	145	
132"		...	300	410	375	320	280	250	225	205	185	160	140	
138"		...	...	390	360	310	270	240	215	195	180	155	135	
144"	...	...	370	345	295	260	230	205	185	170	145	130		
150"	...	...	360	330	285	250	220	200	180	165	140	125		
156"	...	...	...	315	270	240	210	190	170	160	135	120		
162"	...	...	...	300	260	230	205	185	165	150	130	115		
		DIAMETER												
Circles		114"	132"	150"	162"	162"	162"	162"	162"	162"	162"	162"	162"	

\*Plates 1/2" (or more) thick can be supplied with 5% Cladding.  
Consult us if lighter than 3/16" gauges are required.  
Extra wide plates of almost unlimited lengths regularly rolled.

# • LUKENS-CLAD STEEL

## NOMINAL WEIGHTS PER SQUARE FOOT OF LUKENS CLAD PLATES

Thick- ness Inches	10% Cladding Pounds	15% Cladding Pounds	20% Cladding Pounds	Thick- ness Inches	10% Cladding Pounds	15% Cladding Pounds	20% Cladding Pounds
3/16	7.75	7.80	7.84	9/16	23.24	23.38	23.53
1/4	10.33	10.39	10.46	5/8	25.82	25.98	26.14
5/16	12.91	12.99	13.07	11/16	28.40	28.58	28.76
3/8	15.49	15.59	15.69	3/4	30.99	31.18	31.37
7/16	18.08	18.19	18.30	7/8	36.15	36.38	36.60
1/2	20.66	20.79	20.91	1	41.31	41.57	41.83

To these nominal weights per square foot must be added the percentage of allowable overweight according to width and thickness of plates, which in accordance with Manufacturers' Standard Practice, is as follows:

Plates 1/2" Thick and Heavier available with 5% Cladding of Total Plate Thickness.

### WHEN ORDERED TO THICKNESS:

Each plate shall not vary more than .01" under the thickness ordered. The overweight of each lot (meaning all of the plates of each group width and each group thickness) in each shipment shall not exceed the amount given in the following table:

### PERMISSIBLE EXCESS IN AVERAGE WEIGHT PER SQUARE FOOT

(for widths given, expressed in percentage of nominal weight)

Ordered Thick- ness Inches	Under 48"	48" incl. to 60" excl.	60" incl. to 72" excl.	72" incl. to 84" excl.	84" incl. to 96" excl.	96" incl. to 108" excl.	108" incl. to 120" excl.	120" incl. to 132" excl.	132" incl. to 144" excl.	144" incl. to 156" excl.	156" incl. to 162" excl.
3/16	7	8	9	10	12	14	16				
1/4	6	7	8	9	10	12	14	16	19		
5/16	5	6	7	8	9	10	12	14	17	20	
3/8	4.5	5	6	7	8	9	10	12	15	18	21
7/16	4	4.5	5	6	7	8	9	10	13	15	18
1/2	3.5	4	4.5	5	6	7	8	9	11	13	15
5/8	3	3.5	4	4.5	5	6	7	8	9	10	11
3/4	2.5	3	3.5	4	4.5	5	6	7	8	9	10
1	2.5	2.5	3	3.5	4	4.5	5	6	7	8	9

NOTE—The weight of individual plates ordered to thickness shall not exceed the nominal weight by more than one and one-third times the amount given in the above table.

Write for Booklets T-4, "Methods for the Fabrication of Nickel-Monel and Inconel-Clad Steel Plates," and "Lukens Nickel-Clad Steel."

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**ZINC PRODUCTS****SOFT ZINC SHEETS**

Zinc Gauge	Width	Length	Appr. Wt. Per Sheet	Zinc Gauge	Width	Length	Appr. Wt. Per Sheet
No. 5 (.010")	36"	84"	7.8 lbs.	No. 9 (.018")	48"	84"	18.8 lbs.
No. 8 (.016")	36"	84"	12.6 lbs.	No. 9 (.018")	48"	96"	21.3 lbs.
No. 9 (.018")	24"	84"	9.4 lbs.	No. 10 (.020")	36"	84"	15.8 lbs.
No. 9 (.018")	36"	84"	14.0 lbs.	No. 11 (.024")	36"	84"	18.9 lbs.
No. 9 (.018")	36"	96"	16.0 lbs.	No. 12 (.028")	36"	84"	22.0 lbs.

**CHROME PLATED ZINC SHEETS**

Zinc Gauge	Width	Length	Appr. Wt. Per Sheet	Zinc Gauge	Width	Length	Appr. Wt. Per Sheet
No. 4 (.008")	36"	42"	3.15 lbs.	No. 9 (.018")	36"	96"	16.0 lbs.
No. 5 (.010")	36"	96"	8.88 lbs.	No. 11 (.024")	36"	96"	21.6 lbs.
No. 6 (.012")	36"	96"	10.80 lbs.				

**The Following Zinc Products Supplied Promptly**

**ZINC RIBBON, IN COILS**

**ZINC BOILER PLATES**

**also**

**NICKELOID**

Nickel bonded to a Zinc base. An inexpensive, rust resistant sheet metal, at a price that automatically adapts itself to a wide range of uses.

**CHROMALOID**

Pure Zinc base to which Copper, Nickel and Chromium are firmly bonded. Readily formed, highly resistant to tarnish and corrosion. It is easy to clean.

**PRACTICAL USES**

**Trim and Moulding**

**Mirrors—Reflectors—Signs**

**Panels and Backing**

**Stair Edging**

**Kick Plates**

**Novelties**

**and Stampings of All Kinds**



## **VIRGIN LEAD PRODUCTS**

**Available for Immediate Shipment**

**In Such Forms as**

### **COMMERCIAL LEAD SHEETS**

**Standard Sheet**

**96" Wide x 20 Feet Long**

**1 lb. to 16 lb. Per Square Foot**

### **BURNING BAR**

### **CHEMICAL AND ANTIMONIAL LEAD SHEET AND PIPE**

### **LEAD TUBE—COILS—FITTINGS**

### **CAULKING LEAD**

### **LEAD FLASHINGS**

### **LEAD WOOL**

### **LEAD ROD, BAR AND WIRE**

**Serving**

**The Chemical, Rayon and Cellophane Industries**

**Oil and Copper Refineries**

**Textile and By-Product Coke Plants**

**Dye Manufacturers, etc.**

Our mill has facilities for Rolling Lead Sheets up to 108" Wide and any desired Length and shipment can be made, if necessary, the same day order is received.

All Lead Products are made from Virgin Lead.

Where St. Joe Lead is specified we guarantee the product to be such and will so bill it.



## **RANGE BOILERS •**

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### **"WHITEHEAD"**

## **MONEL RANGE BOILERS AND AUTOMATIC GAS STORAGE WATER HEATERS**

We manufacture in Plants owned and operated by ourselves a full line of Monel Range Boilers and Gas-Fired Hot Water Heaters as shown below. Many of our industrial customers, knowing the advantages of Monel in their plants, have purchased these products for use in their own homes.

**These products are not sold by us to the consuming trade, or to individuals, but follow the usual channels of distribution through the plumbing supply trade, and the public utilities.**

If your local plumber cannot supply you we would be pleased to put you in touch with some one in your neighborhood who can take care of your needs in this line.



### **MONEL RANGE BOILERS**

Capacity—25, 30, 40, 50, 60, 80 and 100 Gallons

Test Pressures—200 Lbs., 250 Lbs. and 350 Lbs.

### **MONEL LARGE STORAGE TANKS**

Capacity—Ranging from 125 to 800 Gallons

Test Pressures—200 Lbs., 250 Lbs. and 350 Lbs.

### **MONEL INSULATED RANGE BOILERS**

Capacity—30, 40, 50, 60, 80 and 100 Gallons

Test Pressures—200 Lbs., 250 Lbs. and 350 Lbs.

### **PLYMOUTH RANGE BOILER STANDS**

12", 14", 16" and 18" diameters, in Plain Cast Iron,

Black Japanned and Polished Nickel Plated.

*(Details Upon Application)*

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**STOCK SHIPMENTS FOR ECONOMY**

## • GAS WATER HEATERS



### **"WHITEHEAD" AUTOMATIC GAS STORAGE WATER HEATERS**

**With Monel Tank**

**UNDERFIRED FAST RECOVERY TYPE**

Capacity—20, 30, 40, 50, 60 and 75 Gallons

Tested to 300 Lbs. Hydrostatic Pressure



### **"WHITEHEAD" COPPER RANGE BOILERS**

#### **COPPER RANGE BOILERS**

Capacity—25, 30, 40, 50, 60, 80 and 100 Gallons

Test Pressures—200 lbs., 250 lbs. and 350 lbs.

#### **LARGE COPPER STORAGE TANKS**

Capacity—Ranging from 125 to 800 Gallons

Test Pressures—200 lbs., 250 lbs. and 350 lbs.

*Descriptive Literature Will Be Sent Upon Request.*

**WHITEHEAD METAL PRODUCTS COMPANY, Inc.**



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## **BEVERAGE DISPENSING EQUIPMENT ACCESSORIES**

### **BAR DRAINER PLATES**

(Standard Perforations)

Brass, Nickel Silver and Monel

Made to Order

### **DRAINER PLATE MOULDING**

For

The Drainer and Edge of Counter

Carried in

Monel and Brass

### **BLOCK TIN TUBING IN COILS**

I. D. Thickness

$\frac{1}{4}$ " — 4 oz.

$\frac{3}{8}$ " — 4 oz.

$\frac{3}{8}$ " — 5 oz.

### **INCO MONEL BEER COILS**

Prompt Mill Shipment

$\frac{1}{2}$ " O. D. Tubing—.031" Wall  
In

Pancake and Round Type Coils

To your specifications

### **ANNEALED MONEL TUBING**

For Leader Lines can also be supplied promptly

### **CORRUGATED SHEETS**

For Beer Linings, Sinks, Wash Trays, Etc.

Corrugated in center of sheet with space on each side

### **18% NICKEL SILVER**

Polished One Side

See Page 97

### **COPPER SHEET**

Polished and Tinned One Side

See Page 123

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# **PERFORATED SHEET**

**For Prompt Shipment**

**ALUMINUM — BRASS — BRONZE — COPPER**  
**EVERDUR — MONEL — PURE NICKEL**  
**MUNTZ METAL — NICKEL SILVER**  
**LEAD — ZINC**

**Practically Every Pattern or Design**  
**FOR**  
**Centrifical Linings — Filter Press Plates**  
**Pulp and Paper Mills — Cotton Seed Oil Mills**  
**Crude Oil Refineries**  
**Oil and Stove Manufacturers**  
**Railroad and Mining Uses**  
**Chemical Plants and Miscellaneous Equipment**

## **STANDARD PERFORATIONS**

### **ROUND HOLES**

(48 Patterns)

No. 00 Hole (.020" Holes) to 1" Dia. Hole

No. 22 Slot—For Well Points

### **SQUARE HOLES**

(9 Patterns)

3/32" Hole to 7/8" Hole

### **DIAGONAL SLOTS**

(6 Patterns)

### **STAGGERED SIDEWAYS**

(28 Patterns)

and

### **MANY SPECIAL DESIGNS**

*Illustrated Pamphlet will be sent upon request.*

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## NUSTEEL METAL CLEANER

NUSTEEL is a metal cleaner containing no free acid, free alkali, caustic or harsh abrasives, nor any substance injurious to metal, plastic, enameled surfaces or the hands.

NUSTEEL removes "Superficial Stains" and deposits, and with the aid of a few differing methods of application, restores metal to its original finish. It not only will clean flat or extruded sections, but is extensively used in the cleaning of metal plaques and relief work because it does not leave any residue in the crevices. It dissolves such accumulation of abrasives and grime as have been deposited by the use of ordinary metal polishes. After the surface is cleaned, a protective film remains which materially retards discoloration over a period of time, something not achieved by other metal cleaners.

### NUSTEEL PASTE

Nusteel Paste is recommended for power application.  
Carried in One and Five-Pound Cans.

### NUSTEEL LIQUID

Nusteel Liquid is especially recommended for use on all types of kitchen, dairy, and food service equipment.  
Carried in 12-oz. Applicator Tins, 1 Gallon Cans and 5-Gallon Pour Pails.

### NUSTEEL No. 9-5060

Nusteel Paste in Liquid form recommended for power application or fabrication uses. Carried in 1 Gallon Cans.

### CELLULOSE SPONGE PADS

For use with Liquid Nusteel and No. 9-5060.

### NUSTEEL DUSTING POWDER

A highly Absorbent, Neutral Inert Powder. Packed in Shaker Cartons.

*Descriptive Literature and Samples of both Nusteel Paste and Nusteel Liquid available on request.*

## HYRO SHEET METAL PUNCHES

### No. X.X.

The Hyro No. X.X. Metal Punch is another tool that is saving time and labor in thousands of sheet metal shops. The fact that it can be used as a Bench Punch as well as a Hand Punch makes it a tool of unusual utility. It can be used either in the shop or out in the field.

The Hyro No. X.X. Punch is furnished complete with bench, stand, gauge, stripper, and one Punch and Die of any stock size (Punches and Dies for the X.X. are stocked in a range of sizes from  $\frac{1}{8}$ " to  $\frac{17}{32}$ " by 32nds.)—\$9.75 per set complete (subject to change without notice).

### No. O.X.

Complete with 7 Punches and Dies (one each  $\frac{3}{32}$ ",  $\frac{1}{8}$ ",  $\frac{5}{32}$ ",  $\frac{3}{16}$ ",  $\frac{7}{32}$ ",  $\frac{1}{4}$ ",  $\frac{17}{64}$ ") in a handsome, sturdy steel tool case.—\$6.95 per set complete (subject to change without notice).

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STOCK SHIPMENTS FOR ECONOMY



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# MISCELLANEOUS MATERIALS

Not Listed in This Book

## MONEL

ALUMINUM — BRONZE — PURE NICKEL

BRASS — COPPER — EVERDUR\* — NICKEL SILVER

Made to Order—Reasonably Prompt Shipment

## MACHINE SCREW PRODUCTS

(To Sketch or Blue Prints)

"U" Bolts	Elevator Bolts	Castle Nuts	Terminal Screws
Eye Bolts	Tee Head Bolts	Acorn Nuts	Thumb Screws
Sink Bolts	Step Bolts	Check Nuts	Eye Screws
Tap Bolts	Hook Bolts	Lock Nuts	Binding Screws
Stay Bolts	Slotted Nuts		Set Screws

Split Rivets	Tubular Rivets	Special Rivets
Springs	Rope Clamps	Threaded Rods
Special Washers	Wire Rope Thimbles	Special Nails
Wire Rope Slings	Turnbuckles	Ball Bearings

Expansion Bolts and Shields

Pipe Straps

Tie Rods — Lugs

Kick Plates      Push Plates      Push (Door) Bars

Hinges and Butts

Stair Plates

Stair Nosings

Identification Tags and Checks

Plain and Corrugated Gaskets

Asbestos Lined Gaskets

Circles

Sash Chain	Safety Chain	Cable Chain	Link Chain
Castings	Forgings	Metallic	Wool

## OTHER SPECIAL PARTS

Made of Monel

Parker-Kalon Screws	Allen Hollow Screws
Drive Screws	Bristol Screws
Phillips' Recessed Head	Boiler Stay Bolts and Patch Bolts
Self-Centering	Shakeproof Lock Washers
Machine and Wood Screws	"Alagator" Belt Lacing

## Brass and Copper

Pails      Kettles      Ladles

And Many Other Accessories Too Numerous to Mention

\* Trademark Reg. in U. S. Pat. Office.



# **WEIGHTS, MEASURES and DATA SECTION**

★

## **COMPARATIVE WEIGHTS OF METALS AND ALLOYS**

**Sheets - Circles - Strip - Rods - Pipe -  
Wire - Rivets**

★

## **CONVERSION FACTORS WEIGHT OF METALS**

★

## **COMPARATIVE PHYSICAL AND MECHANICAL PROPERTIES OF METALS**

★

## **COMPARISON OF GAUGES**

★

## **FRACTIONS AND DECIMAL EQUIVALENTS**

★

## **CONVERSION TABLES AND FACTORS**

★

## **CONVERSION OF WEIGHTS AND MEASURES**

★

## **USEFUL CALCULATION RULES**



**All weights in this section are theoretical and may vary in actual practice. All figures have been carefully compiled and checked but we cannot be responsible for errors.**

# • WEIGHTS AND MEASURES

## COMPARATIVE WEIGHTS OF SHEET METAL BY GAUGE NUMBERS

In Pounds Per Square Foot

THICKNESS			METALS				
B. & S. Gauge No.	Nearest Fraction of Inch	Decimal Equiv. in Inches	2-S ALUMI- NUM	BRASS	COM- MERCIAL BRONZE	COPPER	18% NICKEL SILVER
40	....	.0031	.0442	.1366	.1420	.1437	.1411
39	....	.0035	.0497	.1542	.1603	.1623	.1593
38	....	.0040	.0558	.1763	.1833	.1855	.1820
37	....	.0045	.0627	.1983	.2062	.2087	.2048
36	....	.0050	.0704	.2203	.2291	.2318	.2275
35	....	.0056	.0790	.2468	.2566	.2597	.2548
34	....	.0063	.0888	.2776	.2887	.2921	.2867
33	....	.0074	.100	.3129	.3254	.3292	.3231
32	....	.0080	.113	.3525	.3666	.3709	.3640
31	....	.0089	.126	.3922	.4078	.4127	.4050
30	....	.0100	.141	.4406	.4582	.4637	.4550
29	....	.0113	.159	.4979	.5178	.5240	.5142
28	....	.0126	.178	.5552	.5774	.5842	.5734
27	....	.0142	.200	.6257	.6517	.6584	.6462
26	$\frac{1}{64}$	.0159	.225	.7006	.7286	.7373	.7235
25	....	.0179	.252	.7887	.8202	.8300	.8145
24	....	.0201	.283	.8857	.9211	.9320	.9146
23	....	.0226	.318	.9958	1.035	1.048	1.028
22	....	.0254	.357	1.119	1.163	1.178	1.156
21	....	.0285	.401	1.256	1.306	1.321	1.297
20	$\frac{1}{32}$	.0320	.450	1.410	1.466	1.484	1.456
19	....	.0359	.506	1.582	1.645	1.665	1.634
18	....	.0403	.568	1.776	1.847	1.869	1.834
17	$\frac{3}{64}$	.0453	.638	1.996	2.075	2.100	2.061
16	....	.0508	.716	2.238	2.327	2.355	2.312
15	....	.0571	.804	2.516	2.616	2.648	2.598
14	$\frac{1}{16}+$	.0641	.903	2.825	2.938	2.972	2.917
13	....	.0720	1.01	3.173	3.299	3.338	3.276
12	$\frac{5}{64}+$	.0808	1.14	3.560	3.702	3.747	3.677
11	$\frac{3}{32}-$	.0907	1.28	3.997	4.156	4.206	4.127
10	....	.1019	1.44	4.490	4.669	4.725	4.637

Variations from these weights must be expected in practice.

(Continued on next page)

# WEIGHTS AND MEASURES •

## COMPARATIVE WEIGHTS OF SHEET METAL (Cont.)

BY GAUGE NUMBERS (Cont.)

In Pounds Per Square Foot

THICKNESS				METALS			
B. & S. Gauge No.	Nearest Fraction of Inch	Decimal Equiv. in Inches	2-S ALUMI- NUM	BRASS	COM- MERCIAL BRONZE	COPPER	18% NICKEL SILVER
9	$\frac{7}{64}+$	.1144	1.61	5.041	5.242	5.304	5.206
8	$\frac{1}{8}+$	.1285	1.81	5.662	5.888	5.958	5.847
7	$\frac{9}{64}+$	.1443	2.03	6.358	6.612	6.691	6.566
6	$\frac{5}{32}+$	.1620	2.28	7.138	7.423	7.512	7.372
5	$\frac{3}{16}-$	.1819	2.56	8.015	8.335	8.434	8.277
4	$\frac{13}{64}$	.2043	2.88	9.002	9.362	9.473	9.297
3	....	.2294	3.23	10.11	10.51	10.64	10.44
2	$\frac{1}{4}+$	.2576	3.63	11.35	11.80	11.94	11.72
1	$\frac{9}{32}+$	.2893	4.08	12.75	13.30	13.41	13.16
0	$\frac{5}{16}+$	.3249	4.58	14.32	14.89	15.06	14.78
2/0	....	.3648	5.14	16.07	16.71	16.92	16.60
3/0	....	.4096	5.77	18.05	18.77	18.99	18.64
4/0	$\frac{15}{32}+$	.4600	6.48	20.27	21.08	21.33	20.93

### COPPER (Rolled to Weight)

### MONEL AND PURE NICKEL

### ZINC

Weight, Ounces	Sq. Ft. Pounds	Thick- ness in Inches	Nearest Frac. of Inch	Thickness			Zinc Gauge No.	Decimal Equiv.	Weight Per Sq. Ft.
				U.S.Std. Gauge No.	Decimal Equiv.	Weight Per Sq. Ft.			
2	1/8	.0027	....	26	.0187	.86	3	.006	.22
4	1/4	.0054	....	25	.0218	1.01	4	.008	.30
6	3/8	.0081	....	24	.0250	1.15	5	.010	.37
8	1/2	.0108	....	23	.0281	1.03	6	.012	.45
10	5/8	.0135	1/64	22	.0312	1.44	7	.014	.52
12	3/4	.0162	1/64	21	.0343	1.58	8	.016	.60
14	7/8	.0189	1/64	20	.0375	1.73	9	.018	.67
16	1	.0216	1/64	19	.0437	2.02	10	.020	.75
18	1 1/8	.0243	1/32	18	.0500	2.30	11	.024	.90
20	1 1/4	.0270	1/32	17	.0562	2.59	12	.028	1.05
24	1 1/2	.0323	1/32	16	.0625	2.88	13	.032	1.20
28	1 3/4	.0377	1/32	15	.0703	3.24	14	.036	1.35

Variations from these weights must be expected in practice.

(Continued on next page)



# • WEIGHTS AND MEASURES

## COMPARATIVE WEIGHTS OF SHEET METAL (Cont.)

BY GAUGE NUMBERS (Cont.)

In Pounds Per Square Foot

### COPPER (Rolled to Weight)

### MONEL AND PURE NICKEL

### ZINC

Weight, Ounces	Sq. Ft. Pounds	Thick- ness in Inches	Nearest Frac. of Inch	Thickness		Weight Per Sq. Ft.	Zinc		Weight Per Sq. Ft.			
				U. S. Std. Gauge No.	Decimal Equiv.		Gauge No.	Decimal Equiv.				
32	2	.0431	3/64	14	.0781	3.60	15	.040	1.50			
36	2 1/4	.0485	3/64	13	.0937	4.32	16	.045	1.68			
40	2 1/2	.0539	3/64	12	.1093	5.04	17	.050	1.87			
44	2 3/4	.0593	1/16	11	.1250	5.76	18	.055	2.06			
48	3	.0647	1/16	10	.1406	6.48	19	.060	2.25			
56	3 1/2	.0755	5/64	9	.1562	7.20	20	.070	2.62			
64	4	.0863	3/32	8	.1718	7.92	21	.080	3.00			
72	4 1/2	.0970	3/32	7	.1875	8.64	22	.090	3.37			
80	5	.1078	7/64	6	.2031	9.36	23	.100	3.75			
..	5 1/2	.1186	1/8	5	.2187	10.08	24	.125	4.70			
..	6	.1294	1/8	4	.2343	10.80	25	.250	9.40			
..	6 1/2	.1402	9/64	3	.2500	11.52	26	.375	14.00			
..	7	.1510	5/32	The table above is to be used for both Standard Cold Rolled Sheet and #35 Sheet.						27	.500	18.75
..	7 1/2	.1617	5/32							28	1.000	37.50
..	8	.1725	11/64									
..	8 1/2	.1833	3/16									
..	9	.1941	3/16	To determine the weight for other alloys, use the following:  ALUMINUM (17 S-T)—Multiply Weight of 2 S ALUMINUM by 1.03.  ARCHITECTURAL BRONZE—Approx. same as BRASS.  INCONEL—Approx. same as MONEL.  LOW BRASS 80%—Multiply Weight of BRASS by 1.0229.								
..	9 1/2	.2049	13/64									
..	10	.2157	7/32									
..	11	.2372	15/64									
..	12	.2588	17/64									
..	13	.2804	9/32									
..	14	.3019	19/64									
..	15	.3235	21/64									
..	16	.3451	11/32									

Weight of COPPER sheet by  
Gauge and Fractional Inch,  
refer to Pages 221 and 222, re-  
spectively.

NICKEL SILVER 10%—Multiply Weight of Nickel Silver by .9905.

NICKEL SILVER 15%—Multiply Weight of Nickel Silver by .9937.

NICKEL SILVER 20 and 30%—Multiply Weight of Nickel Silver by 1.0127.

PHOSPHOR BRONZE—Multiply Weight of BRASS by 1.0458.

Variations from these weights must be expected in practice.

# WEIGHTS AND MEASURES •

## COMPARATIVE WEIGHTS OF SHEET METAL

### BY FRACTIONAL INCH THICKNESSES

In Pounds Per Square Foot

METALS										
Frac.	Thickness, in Inches Decimal	2S ALUMI- NUM	BRASS	COM- MERCIAL BRONZE	COP- PER	18% NICKEL SILVER	10% NICKEL- CLAD STEEL	LEAD	ZINC	
1/16	.0625	.880	2.754	2.862	2.898	2.844	2.88	4.0	2.35	
1/8	.125	1.760	5.508	5.724	5.796	5.688	5.76	8.0	4.70	
3/16	.1875	2.641	8.262	8.586	8.694	8.532	8.64	12.0	7.05	
1/4	.250	3.521	11.02	11.45	11.59	11.38	11.52	16.0	9.40	
5/16	.3125	4.401	13.77	14.31	14.49	14.22	14.35	20.0	11.75	
3/8	.375	5.282	16.52	17.17	17.39	17.06	17.25	24.0	14.10	
7/16	.4375	6.162	19.28	19.94	20.29	19.91	20.09	28.0	16.45	
1/2	.500	7.043	22.03	22.90	23.18	22.75	22.98	32.0	18.80	
9/16	.5625	7.923	24.79	25.76	26.08	25.60	25.83	36.0	21.15	
5/8	.625	8.803	27.54	28.62	28.98	28.44	28.75	40.0	23.50	
11/16	.6875	9.684	30.29	31.48	31.88	31.28	31.57	44.0	25.85	
3/4	.750	10.564	33.05	34.35	34.78	34.13	34.47	48.0	28.80	
13/16	.8125	11.444	35.80	37.21	37.67	36.97	37.31	52.0	30.55	
7/8	.875	12.325	38.56	40.07	40.57	39.82	40.25	56.0	32.90	
15/16	.9375	13.205	41.31	42.93	43.47	42.66	42.95	60.0	35.25	
1	1.000	14.086	44.06	45.80	46.37	45.50	46.08	64.0	37.60	
1 1/16	1.0625	14.966	46.82	48.66	49.27	48.35	48.83	68.0	39.95	
1 1/8	1.125	15.846	49.57	51.52	52.16	51.19	51.71	72.0	42.30	
1 3/16	1.1875	16.727	52.33	54.27	55.06	54.04	54.58	76.0	44.65	
1 1/4	1.250	17.607	55.08	57.25	57.96	56.88	57.45	80.0	47.00	
1 5/16	1.315	18.487	57.83	60.11	60.86	59.72	60.31	84.0	49.25	
1 3/8	1.375	19.368	60.59	62.87	63.76	62.57	63.03	88.0	51.70	
1 7/16	1.4375	20.248	63.34	65.74	66.65	65.41	66.05	92.0	54.05	
1 1/2	1.500	21.129	66.10	67.70	69.55	68.26	68.94	96.0	56.40	
1 9/16	1.5625	22.009	68.85	71.56	72.45	71.10	71.79	100.0	58.75	
1 5/8	1.625	22.889	71.60	74.42	75.35	73.94	74.71	104.0	61.10	
1 11/16	1.6875	23.770	74.36	77.28	78.25	76.79	77.58	108.0	63.45	
1 3/4	1.750	24.650	77.11	80.15	81.14	79.63	80.43	112.0	65.80	
1 13/16	1.8125	25.530	79.87	83.01	84.04	82.48	83.27	116.0	68.15	
1 7/8	1.875	26.411	82.62	85.87	86.94	85.32	86.71	120.0	70.50	
1 15/16	1.9375	27.291	85.37	88.73	89.84	88.16	89.05	124.0	72.85	
2	2.000	28.172	88.13	91.60	92.74	91.01	91.92	128.0	75.20	

‡10% Nickel-Cladding.

For weights of 15% and 20% cladding see Page 211.

Variations from these weights must be expected in practice.



# • WEIGHTS AND MEASURES

## COMPARATIVE WEIGHTS OF CIRCLES BASED ON WEIGHT OF HIGH BRASS

In Pounds Per Circle

### BROWN & SHARPE'S GAUGE

Dia. in Inches	No. 30 (.0100)	No. 28 (.0126)	No. 26 (.0159)	No. 24 (.0201)	No. 22 (.0254)	No. 20 (.0320)	No. 18 (.0403)	No. 16 (.0508)	No. 14 (.0641)
4	.0386	.0486	.0613	.0775	.0976	.1235	.1555	.1968	.2469
4 1/4	.0436	.0549	.0692	.0875	.1102	.1394	.1755	.2221	.2787
4 1/2	.0488	.0615	.0776	.0981	.1235	.1562	.1967	.2490	.312
4 3/4	.0544	.0685	.0865	.1093	.1376	.1741	.2192	.2774	.348
5	.0603	.0760	.0958	.1212	.1525	.1929	.2429	.307	.386
5 1/4	.0665	.0837	.1057	.1336	.1681	.2127	.2678	.339	.425
5 1/2	.0729	.0919	.1160	.1466	.1845	.2334	.2939	.372	.467
5 3/4	.0797	.1004	.1268	.1602	.2017	.2551	.321	.407	.510
6	.0868	.1094	.1380	.1745	.2196	.2778	.350	.443	.556
6 1/4	.0942	.1187	.1498	.1893	.2383	.301	.380	.480	.603
6 1/2	.1019	.1284	.1620	.2048	.2577	.326	.411	.520	.652
6 3/4	.1099	.1384	.1747	.2208	.2779	.352	.443	.560	.703
7	.1181	.1489	.1879	.2375	.2989	.378	.476	.603	.756
7 1/4	.1267	.1597	.2015	.2547	.321	.406	.511	.646	.811
7 1/2	.1356	.1709	.2157	.2726	.343	.434	.547	.692	.868
7 3/4	.1448	.1825	.2303	.2911	.366	.463	.584	.739	.927
8	.1543	.1944	.2454	.310	.390	.494	.622	.787	.988
8 1/2	.....	.....	.2770	.350	.441	.557	.702	.888	1.115
9	.....	.....	.311	.393	.494	.625	.787	.996	1.250
9 1/2	.....	.....	.346	.437	.551	.696	.877	1.110	1.393
10	.....	.....	.383	.485	.610	.772	.972	1.230	1.543
10 1/2	.....	.....	.423	.534	.673	.851	1.071	1.356	1.701
11	.....	.....	.464	.586	.738	.934	1.176	1.488	1.867
11 1/2	.....	.....	.507	.641	.807	1.020	1.285	1.626	2.041
12	.....	.....	.552	.698	.878	1.111	1.399	1.771	2.222
12 1/2	.....	.....	.599	.757	.953	1.206	1.518	1.921	2.411
13	.....	.....	.648	.819	1.031	1.304	1.642	2.078	2.608
13 1/2	.....	.....	.699	.883	1.112	1.406	1.771	2.241	2.812
14	.....	.....	.751	.950	1.196	1.512	1.905	2.410	3.02
14 1/2	.....	.....	.806	1.019	1.283	1.622	2.043	2.585	3.24
15	.....	.....	.863	1.090	1.372	1.738	2.186	2.767	3.47
15 1/2	.....	.....	.921	1.164	1.466	1.854	2.335	2.954	3.71
16	.....	.....	.981	1.241	1.562	1.975	2.488	3.15	3.95
17	.....	.....	.....	.....	1.732	2.191	2.759	3.49	4.38
18	.....	.....	.....	.....	1.976	2.500	3.15	3.98	5.00
19	.....	.....	.....	.....	2.202	2.785	3.51	4.44	5.57

Variations from these weights must be expected in practice.



# WEIGHTS AND MEASURES •

## COMPARATIVE WEIGHTS OF CIRCLES (Cont.)

### BASED ON WEIGHT OF HIGH BRASS

In Pounds Per Circle

#### BROWN & SHARPE'S GAUGE

Dia. in Inches	No. 30 (.0100)	No. 28 (.0126)	No. 26 (.0159)	No. 24 (.0201)	No. 22 (.0254)	No. 20 (.0320)	No. 18 (.0403)	No. 16 (.0508)	No. 14 (.0641)
20	.....	.....	.....	.....	2.440	3.09	3.89	4.92	6.17
21	.....	.....	.....	.....	2.690	3.40	4.29	5.42	6.81
22	.....	.....	.....	.....	2.953	3.73	4.70	5.95	7.47
23	.....	.....	.....	.....	3.22	4.07	5.13	6.51	8.16
24	.....	.....	.....	.....	3.51	4.44	5.60	7.08	8.89

To determine the weight of Circles for other Metals, multiply the above weight by the following conversion factors:

Aluminum (2 S)	— .324	Low Brass (85%)	— 1.03
Aluminum (17 S)	— .337	Monel	— 1.05
Commercial Bronze (10%)	— 1.04	Nickel	— 1.05
Copper	— 1.05	Nickel Silver (18%)	— 1.03
	Phosphor Bronze (5%)	— 1.045	

## COMPARATIVE WEIGHTS OF STRIP

### BASED ON THE WEIGHT OF HIGH BRASS

In Pounds Per Linear Foot

#### WIDTH OF METAL

Thickness in Inches B. & S. Gauge	Decimal Equiv.	¼"	⅜"	½"	⅝"	¾"	1"	2"	3"	4"
30	.0100	.0091	.0137	.0183	.0229	.0275	.0367	.073	.110	.146
29	.0113	.0103	.0155	.0207	.0259	.0311	.0414	.082	.124	.166
28	.0126	.0115	.0173	.0231	.0289	.0347	.0462	.092	.138	.185
27	.0142	.0130	.0195	.0260	.0325	.0391	.0521	.104	.156	.208
26	.0156	.0146	.0218	.0291	.0364	.0437	.0583	.116	.175	.233
25	.0179	.0164	.0246	.0328	.0410	.0493	.0657	.131	.197	.262
24	.0201	.0184	.0276	.0369	.0461	.0553	.0738	.147	.221	.295
23	.0226	.0207	.0311	.0414	.0518	.0622	.0829	.166	.249	.331
22	.0254	.0233	.0349	.0466	.0582	.0699	.0932	.186	.279	.373
21	.0285	.0261	.0392	.0523	.0654	.0784	.1047	.209	.314	.418
20	.0320	.0293	.0440	.0587	.0734	.0881	.1175	.235	.352	.470
19	.0359	.0329	.0494	.0659	.0823	.0988	.1318	.263	.395	.527
18	.0403	.0370	.0554	.0739	.0924	.1110	.1480	.296	.443	.591
17	.0453	.0415	.0623	.0831	.1040	.1248	.1663	.332	.499	.665
16	.0508	.0466	.0699	.0932	.1166	.1399	.1865	.373	.559	.746
15	.0571	.0524	.0786	.1048	.1310	.1573	.2097	.419	.629	.838
14	.0641	.0588	.0882	.1177	.1471	.1765	.2354	.470	.706	.941
13	.0720	.0661	.0991	.1322	.1652	.1983	.2644	.528	.793	1.058
12	.0808	.0741	.1113	.1483	.1854	.2225	.2967	.593	.890	1.187
11	.0907	.0832	.1249	.1665	.2082	.2498	.3331	.666	.999	1.332

# ● WEIGHTS AND MEASURES

## COMPARATIVE WEIGHTS OF STRIP (Cont.) BASED ON THE WEIGHT OF HIGH BRASS

In Pounds, Per Linear Foot

Thickness in Inches B. & S. Gauge		WIDTH OF METAL								
Decimal Equiv.		1/4"	3/8"	1/2"	5/8"	3/4"	1"	2"	3"	4"
10	.1019	.0935	.1403	.1871	.2339	.2806	.3742	.748	1.123	1.497
9	.1144	.1050	.1575	.2100	.2625	.3151	.4201	.840	1.260	1.680
8	.1285	.1180	.1769	.2359	.2949	.3539	.4719	.943	1.416	1.887
7	.1443	.1325	.1987	.2649	.3312	.3974	.5299	1.060	1.590	2.119
6	.1620	.1487	.2231	.2974	.3718	.4461	.5949	1.190	1.785	2.379

To determine the weight of Strip for other Metals, multiply above weight by the following factors:

Aluminum (2 S)	— .324	Low Brass (85%)	—1.03
Aluminum (17 S)	— .337	Monel	—1.05
Comm'l Bronze (10%)	—1.04	Nickel	—1.05
Copper	—1.05	Nickel Silver (18%)	—1.03

## COMPARATIVE WEIGHTS OF ROUND ROD

In Pounds Per Linear Foot

Diameter	Decimal Equiv.	2 S				
		ALUMINUM	BRASS	BRONZE	COPPER	MONEL
1/16"	.0625	.004	.0113	.0112	.0118	.012
1/8"	.125	.014	.0452	.0447	.0473	.048
3/16"	.1875	.032	.1019	.1006	.1065	.111
1/4"	.250	.058	.1811	.1788	.1894	.190
5/16"	.3125	.090	.2829	.2794	.2959	.297
3/8"	.375	.129	.4074	.4024	.4261	.428
7/16"	.4375	.176	.5546	.5477	.5800	.583
1/2"	.500	.230	.7243	.7154	.7576	.761
9/16"	.5625	.291	.9167	.9054	.9588	.963
5/8"	.625	.360	1.132	1.118	1.184	1.189
11/16"	.6875	.435	1.369	1.353	1.432	1.439
3/4"	.750	.518	1.630	1.610	1.705	1.712
13/16"	.8125	.608	1.913	1.889	2.001	2.010
7/8"	.875	.705	2.218	2.191	2.320	2.331
15/16"	.9375	.809	2.546	2.515	2.663	2.766
1"	1.000	.921	2.897	2.862	3.030	3.044
1 1/16"	1.0625	1.039	3.271	3.230	3.421	3.436
1 1/8"	1.125	1.165	3.667	3.622	3.835	3.853
1 3/16"	1.1875	1.298	4.086	4.035	4.273	4.293
1 1/4"	1.250	1.439	4.527	4.471	4.735	4.756
1 5/16"	1.3125	1.586	4.991	4.929	5.220	5.244
1 3/8"	1.375	1.741	5.478	5.410	5.729	5.756

# WEIGHTS AND MEASURES •

## COMPARATIVE WEIGHTS OF ROUND ROD (Cont.)

In Pounds Per Linear Foot

Diameter	Decimal Equiv.	2 S ALUMINUM	BRASS	BRONZE	COPPER	MONEL
1 $\frac{7}{16}$ "	1.4375	1.903	5.987	5.913	6.262	6.291
1 $\frac{1}{2}$ "	1.500	2.072	6.519	6.438	6.818	6.849
1 $\frac{9}{16}$ "	1.5625	2.248	7.073	6.986	7.398	7.432
1 $\frac{5}{8}$ "	1.625	2.431	7.651	7.556	8.002	8.039
1 $\frac{11}{16}$ "	1.6875	2.622	8.250	8.149	8.630	8.669
1 $\frac{3}{4}$ "	1.750	2.820	8.873	8.763	9.281	9.321
1 $\frac{13}{16}$ "	1.8125	3.025	9.518	9.401	9.955	10.001
1 $\frac{7}{8}$ "	1.875	3.237	10.19	10.06	10.65	10.702
1 $\frac{15}{16}$ "	1.9375	3.457	10.88	10.74	11.38	11.428
2"	2.000	3.683	11.59	11.45	12.12	12.178
2 $\frac{1}{8}$ "	2.125	4.158	13.08	12.92	13.68	13.747
2 $\frac{1}{4}$ "	2.250	4.662	14.67	14.49	15.34	15.411
2 $\frac{3}{8}$ "	2.375	5.194	16.34	16.14	17.09	17.171
2 $\frac{1}{2}$ "	2.500	5.755	18.11	17.88	18.94	19.027
2 $\frac{5}{8}$ "	2.625	6.345	19.96	19.72	20.88	20.977
2 $\frac{3}{4}$ "	2.750	6.964	21.91	21.64	22.92	23.022
2 $\frac{7}{8}$ "	2.875	7.611	23.95	23.65	25.05	25.162
3"	3.000	8.287	26.08	25.75	27.27	27.399
3 $\frac{1}{4}$ "	3.250	9.746	—	30.22	32.01	32.155
3 $\frac{1}{2}$ "	3.500	11.303	—	35.05	37.12	37.291
3 $\frac{3}{4}$ "	3.750	12.975	—	40.24	42.61	42.810
4"	4.000	14.763	—	45.78	48.49	48.706
4 $\frac{1}{4}$ "	4.250	16.666	—	51.69	54.74	54.985
4 $\frac{1}{2}$ "	4.500	18.684	—	57.75	61.37	61.644

For the weight of other Metals, multiply by the following:

Aluminum

(17 S-T or 11 S-T) —2S Alum. Weight by 1.03

Commercial Bronze —Brass Weight by 1.039

Muntz Metal —Same Weight as Brass

Nickel —Same Weight as Monel

Nickel Silver (12%) —Brass Weight by 1.022

Phosphor Bronze —Brass Weight by 1.049

## COMPARATIVE WEIGHTS OF HEXAGON ROD

In Pounds Per Linear Foot

Diameter	Decimal Equiv.	2 S ALUMINUM	BRASS	BRONZE	COPPER	MONEL
1 $\frac{1}{16}$ "	.0625	.004	.012	.012	.013	.....
1 $\frac{1}{8}$ "	.125	.016	.049	.049	.052	.....
3 $\frac{1}{16}$ "	.1875	.035	.112	.111	.1175	.....
1 $\frac{1}{4}$ "	.250	.065	.199	.197	.208	.209

Variations from these weights must be expected in practice.



# ● WEIGHTS AND MEASURES

## COMPARATIVE WEIGHTS OF HEXAGON ROD (Cont.)

In Pounds Per Linear Foot

Diameter	Decimal Equiv.	2 S ALUMINUM	BRASS	BRONZE	COPPER	MONEL
5/16"	.3125	.101	.312	.308	.326	.327
3/8"	.375	.143	.449	.443	.469	.472
7/16"	.4375	.195	.611	.603	.639	.643
1/2"	.500	.254	.798	.788	.835	.839
9/16"	.5625	.322	1.011	.998	1.057	1.062
5/8"	.625	.397	1.248	1.232	1.305	1.311
11/16"	.6875	.481	1.510	1.491	1.579	1.586
3/4"	.750	.572	1.797	1.775	1.880	1.887
13/16"	.8125	.672	2.109	2.083	2.206	2.216
7/8"	.875	.780	2.446	2.416	2.558	2.570
15/16"	.9375	.893	2.808	2.773	2.937	2.940
1"	1.000	1.016	3.195	3.155	3.341	3.356
1 1/16"	1.0625	1.148	3.607	3.562	3.772	3.788
1 1/8"	1.125	1.287	4.043	3.993	4.229	4.248
1 3/16"	1.1875	1.433	4.505	4.449	4.712	4.733
1 1/4"	1.250	1.587	4.992	4.930	5.221	5.243
1 5/16"	1.3125	1.750	5.503	5.435	5.756	5.782
1 3/8"	1.375	1.921	6.040	5.965	6.317	6.346
1 7/16"	1.4375	2.100	6.602	6.520	6.905	6.934
1 1/2"	1.500	2.286	7.188	7.099	7.518	7.551
1 9/16"	1.5625	2.484	7.800	7.703	8.158	8.194
1 5/8"	1.625	2.687	8.436	8.332	8.824	8.863
1 11/16"	1.6875	2.897	9.097	8.985	9.515	9.558
1 3/4"	1.750	3.115	9.784	9.663	10.23	10.276
1 13/16"	1.8125	3.342	10.50	10.37	10.98	11.026
1 7/8"	1.875	3.576	11.23	11.09	11.75	11.799
1 15/16"	1.9375	3.819	11.99	11.84	12.54	12.599
2"	2.000	4.069	12.78	12.62	13.37	13.426
2 1/8"	2.125	.....	14.43	14.25	15.09	15.156
2 1/4"	2.250	.....	16.17	15.97	16.92	16.991
2 3/8"	2.375	.....	18.02	17.80	18.85	18.921
2 1/2"	2.500	.....	19.97	19.72	20.88	20.977
2 5/8"	2.625	.....	22.01	21.74	23.02	23.127
2 3/4"	2.750	.....	24.16	23.86	25.27	25.382
2 7/8"	2.875	.....	26.41	26.08	27.62	27.741
3"	3.000	.....	28.75	28.40	30.07	30.207

For weights of other Metals, see page 231.

Variations from these weights must be expected in practice.

# WEIGHTS AND MEASURES •

## COMPARATIVE WEIGHTS OF SQUARE ROD

Diameter	Decimal Equiv.	In Pounds Per Linear Foot				
		2 S ALUMINUM	BRASS	BRONZE	COPPER	MONEL
1/16"	.0625	.005	.014	.014	.015	.....
1/8"	.125	.011	.057	.057	.060	.....
3/16"	.1875	.041	.129	.128	.135	.....
1/4"	.250	.073	.236	.227	.241	.....
5/16"	.3125	.115	.360	.355	.378	.379
3/8"	.375	.165	.518	.512	.542	.545
7/16"	.4375	.224	.706	.697	.738	.742
1/2"	.500	.293	.922	.910	.964	.969
9/16"	.5625	.371	1.167	1.153	1.221	1.226
5/8"	.625	.458	1.441	1.423	1.507	1.514
11/16"	.6875	.554	1.744	1.722	1.824	1.832
3/4"	.750	.659	2.075	2.049	2.170	2.180
13/16"	.8125	.774	2.435	2.405	2.547	2.559
7/8"	.875	.898	2.824	2.789	2.954	2.968
15/16"	.9375	1.030	3.242	3.202	3.391	3.407
1"	1.000	1.172	3.689	3.643	3.858	3.876
11/16"	1.0625	1.324	4.164	4.113	4.356	4.376
1 1/8"	1.125	1.484	4.669	4.611	4.883	4.906
1 3/16"	1.1875	1.653	5.202	5.138	5.441	5.466
1 1/4"	1.250	1.832	5.764	5.693	6.029	6.056
1 5/16"	1.3125	2.019	6.355	6.276	6.647	6.677
1 3/8"	1.375	2.217	6.974	6.888	7.295	7.328
1 7/16"	1.4375	2.423	7.623	7.529	7.973	8.009
1 1/2"	1.500	2.638	8.300	8.198	8.681	8.721
1 9/16"	1.5625	2.862	9.006	8.895	9.420	9.463
1 5/8"	1.625	3.096	9.741	9.621	10.19	10.235
1 11/16"	1.6875	3.339	10.50	10.38	10.99	11.038
1 3/4"	1.750	3.590	11.30	11.16	11.82	11.870
1 13/16"	1.8125	3.852	12.12	11.97	12.68	12.733
1 7/8"	1.875	4.122	12.97	12.81	13.56	13.627
1 15/16"	1.9375	4.401	13.85	13.68	14.48	14.550
2"	2.000	4.690	14.76	14.57	15.43	15.504
2 1/8"	2.125	5.294	16.66	16.45	17.42	17.503
2 1/4"	2.250	5.935	18.68	18.44	19.53	19.622
2 3/8"	2.375	6.613	20.81	20.55	21.76	21.76
2 1/2"	2.500	7.328	23.06	22.77	24.12	24.12
2 5/8"	2.625	8.079	25.42	25.11	26.59	26.59
2 3/4"	2.750	8.866	27.90	27.55	29.18	29.18

Variations from these weights must be expected in practice.

# • WEIGHTS AND MEASURES

## COMPARATIVE WEIGHTS OF SQUARE ROD (Cont.)

Diameter	Decimal Equiv.	In Pounds Per Linear Foot				
		2 S ALUMINUM	BRASS	BRONZE	COPPER	MONEL
2 7/8"	2.875	9.691	30.49	30.12	31.89	31.89
3"	3.000	10.55	33.20	32.79	34.73	34.73

For weights of other Metals, see foot note.

## COMPARATIVE WEIGHTS OF RECTANGULAR ROD BASED ON THE WEIGHT OF COPPER

Width in Inches	In Pounds Per Linear Foot THICKNESS OF METAL							
	1/16"	1/8"	3/16"	1/4"	3/8"	1/2"	3/4"	1"
1/2	.1208	.2415	.3623	.4830	.....	.....	.....	.....
5/8	.1509	.3019	.4528	.6038	.....	.....	.....	.....
3/4	.1811	.3623	.5434	.7245	.....	.....	.....	.....
7/8	.2113	.4226	.6339	.8453	.....	.....	.....	.....
1	.2415	.4830	.7245	.9660	1.449	1.932	2.898	3.864
1 1/4	.3019	.6038	.9056	1.208	1.811	2.415	3.623	4.830
1 1/2	.3623	.7245	1.087	1.449	2.174	2.898	4.347	5.796
1 3/4	.4226	.8453	1.268	1.691	2.536	3.381	5.072	6.762
2	.4830	.9660	1.449	1.932	2.898	3.864	5.796	7.728
2 1/4	.5434	1.087	1.630	2.174	3.260	4.347	6.521	8.694
2 1/2	.6038	1.208	1.811	2.415	3.623	4.830	7.245	9.660
2 3/4	.6641	1.328	1.992	2.657	3.985	5.313	7.970	10.63
3	.7245	1.449	2.174	2.898	4.347	5.796	8.694	11.59
3 1/4	.7849	1.570	2.355	3.140	4.709	6.279	9.419	12.56
3 1/2	.8453	1.691	2.536	3.381	5.072	6.762	10.14	13.52
3 3/4	.9056	1.811	2.717	3.623	5.434	7.245	10.87	14.49
4	.9660	1.932	2.898	3.864	5.796	7.728	11.59	15.46
4 1/4	1.026	2.053	3.079	4.106	6.158	8.211	12.32	16.62
4 1/2	1.087	2.174	3.260	4.347	6.521	8.694	13.04	17.39
4 3/4	1.147	2.294	3.441	4.589	6.883	9.177	13.77	18.35
5	1.208	2.415	3.623	4.830	7.245	9.660	14.49	19.32
5 1/4	1.268	2.536	3.804	5.072	7.607	10.14	15.21	20.29
5 1/2	1.328	2.657	3.985	5.313	7.970	10.63	15.94	21.25
5 3/4	1.389	2.777	4.166	5.555	8.332	11.11	16.66	22.22
6	1.449	2.898	4.347	5.796	8.694	11.59	17.39	23.18

To determine the weight of Rods for other Metals, multiply above weights by the following factors:

Aluminum (2 S)	— .304	Monel	— Approx. Same as Copper
Aluminum (17 S)	— .313	Nickel	— Approx. Same as Copper
Architectural Bronze	— .95	Nickel Silver (18%)	— .97
Brass (High)	— .95	Phosphor Bronze	— .99
Commercial Bronze	— .98		

Variations from these weights must be expected in practice.



# WEIGHTS AND MEASURES •

## COMPARATIVE WEIGHTS OF PIPE

### STANDARD PIPE SIZES

Nominal Size Inches	Outside Diameter Inches	Wall Thickness Inches	In Pounds Per Linear Foot				EVER- DUR (1010)	MONEL AND NICKEL
			2 S ALUMI- NUM	67 BRASS	85 RED BRASS	COPPER		
1/8	.405	.0620	.084	.246	.253	.259	.247	.274
1/4	.540	.0825	.147	.437	.450	.460	.438	.477
3/8	.675	.0905	.196	.612	.630	.643	.614	.638
1/2	.840	.1075	.294	.911	.938	.957	.914	.957
3/4	1.050	.1140	.390	1.24	1.27	1.30	1.24	1.272
1	1.315	.1265	.580	1.74	1.79	1.83	1.75	1.889
1 1/4	1.660	.1460	.785	2.56	2.63	2.69	2.57	2.558
1 1/2	1.900	.1500	.939	3.04	3.13	3.20	3.05	3.059
2	2.375	.1565	1.262	4.02	4.14	4.23	4.03	4.112
2 1/2	2.875	.1875	2.002	5.83	6.00	6.14	5.85	6.522
3	3.500	.2190	2.617	8.31	8.56	8.75	8.34	8.529
3 1/2	4.000	.2500	3.147	10.85	11.17	11.41	10.89	10.248
4	4.500	.2500	3.729	12.29	12.66	12.94	12.34	12.139
4 1/2	5.000	.2500	4.333	13.74	14.15	14.46	13.79	14.105
5	5.563	.2500	5.051	15.40	15.85	16.21	15.45	.....
6	6.625	.2500	6.556	18.44	18.99	19.41	18.51	.....
7	7.625	.2815	8.136	23.92	24.63	25.17	24.00	.....
8	8.625	.3125	9.867	30.05	30.95	31.63	30.16	.....
9	9.625	.3440	12.000	36.94	38.03	38.83	37.07	.....
10	10.750	.3655	14.500	43.91	45.20	46.22	44.07	.....
11	11.750	.3750	.....	49.37	50.81	51.94	49.53	.....
12	12.750	.3750	.....	53.71	55.29	56.51	53.88	.....

### EXTRA HEAVY PIPE SIZES

Nominal Size Inches	Outside Diameter Inches	Wall Thickness Inches	In Pounds Per Linear Foot				EVER- DUR (1010)	MONEL AND NICKEL
			2 S ALUMI- NUM	67 BRASS	85 RED BRASS	COPPER		
1/8	.405	.100	.109	.353	.363	.371	.354	.383
1/4	.540	.123	.185	.593	.611	.624	.596	.602
3/8	.675	.127	.255	.805	.829	.847	.808	.830
1/2	.840	.149	.376	1.19	1.23	1.25	1.20	1.223
3/4	1.050	.157	.509	1.62	1.67	1.71	1.63	1.657
1	1.315	.182	.750	2.39	2.46	2.51	2.39	2.442
1 1/4	1.660	.194	1.035	3.30	3.39	3.46	3.30	3.371
1 1/2	1.900	.203	1.254	3.99	4.10	4.19	4.00	4.085
2	2.375	.221	1.735	5.51	5.67	5.79	5.53	5.650

Variations from these weights must be expected in practice.

# • WEIGHTS AND MEASURES

## COMPARATIVE WEIGHTS OF PIPE (Cont.)

### EXTRA HEAVY PIPE SIZES (Cont.)

Nominal Size Inches	Outside Diameter Inches	Wall Thickness Inches	2 S ALUMI- NUM	67 BRASS	85 RED BRASS	COPPER	EVER- DUR (1010)	MONEL AND NICKEL
			Pounds Per Linear Foot					
2 1/2	2.875	.280	2.647	8.41	8.66	8.84	8.44	8.619
3	3.500	.304	3.543	11.24	11.57	11.82	11.28	.....
3 1/2	4.000	.321	4.321	13.67	14.07	14.37	13.71	.....
4	4.500	.341	5.178	16.41	16.89	17.25	16.47	.....
4 1/2	5.000	.375	6.086	20.07	20.66	21.10	20.14	.....
5	5.563	.375	7.180	22.52	23.18	23.67	22.59	.....
6	6.625	.437	9.874	31.32	32.21	32.93	31.40	.....
7	7.625	.500	13.147	41.23	42.43	43.34	41.37	.....
8	8.625	.500	14.993	42.02	48.39	49.42	47.17	.....
9	9.625	.500	17.010	52.81	54.34	55.56	52.98	.....
10	10.750	.500	19.103	59.32	61.05	62.40	59.51	.....

For weights of—

Admiralty Mixture —Use Weight of 67 Brass  
 Aluminum (17 S) —Use of Weight 2 S Aluminum Multiplied by 1.03  
 Ambrac (20% Nickel) —Use Weight of 67 Brass Multiplied by 1.04  
 Everdur (1010) —Use Weight of 85 Red Brass

### DOUBLE EXTRA HEAVY

Nominal Size Inches	O. D. Inches	Wall Inches	67 BRASS ADMIRALTY	85 RED BRASS	COPPER
			Pounds Per Foot		
1/2	.840	.294	1.86	1.91	1.95
3/4	1.050	.308	2.64	2.72	2.78
1	1.315	.358	3.97	4.08	4.17
1 1/4	1.660	.382	5.65	5.82	5.94
1 1/2	1.900	.400	6.94	7.15	7.31
2	2.375	.436	9.78	10.07	10.29
2 1/2	2.875	.552	14.84	15.28	15.61
3	3.500	.600	20.14	20.73	21.19
3 1/2	4.000	.636	24.76	25.49	26.05
4	4.500	.674	29.85	30.72	31.40
4 1/2	5.000	.710	35.25	36.29	37.09
5	5.563	.750	41.78	43.00	43.96
6	6.625	.864	57.61	59.30	60.61
7	7.625	.875	68.36	70.36	71.92
8	8.625	.875	78.48	80.78	82.57

Variations from these weights must be expected in practice.

# WEIGHTS AND MEASURES •

## COMPARATIVE WEIGHTS OF WIRE

B. & S. Gauge	Diameter Decl.	2 S	BRASS	COPPER	MONEL	18% NICKEL SILVER
		ALUMINUM	Pounds Per 1000 Feet			
40	.0031	.....	.0276	.0299	.0289	.0292
39	.0035	.....	.0352	.0377	.0368	.0369
38	.004	.....	.0459	.0475	.0482	.0465
37	.0045	.....	.0582	.0600	.0610	.0586
36	.0050	.010	.0718	.0756	.0753	.0739
35	.0056	.020	.0901	.0954	.0945	.0933
34	.0063	.040	.1141	.1203	.1196	.1176
33	.0071	.050	.1449	.1517	.1519	.1483
32	.0080	.060	.1840	.1913	.1929	.1870
31	.0089	.070	.2277	.2413	.2387	.2359
30	.0100	.090	.2875	.3042	.3014	.2977
29	.0113	.120	.3671	.3836	.3785	.3752
28	.0126	.140	.4564	.4837	.4786	.4728
27	.0142	.190	.5796	.6100	.6076	.5967
26	.0159	.230	.7267	.7692	.7619	.7519
25	.0179	.300	.9210	.9699	.9655	.9482
24	.0201	.350	1.161	1.223	1.218	1.196
23	.0226	.500	1.468	1.542	1.539	1.508
22	.0254	.600	1.855	1.945	1.946	1.902
21	.0285	.700	2.335	2.452	2.430	2.397
20	.0320	.900	2.944	3.092	3.085	3.023
19	.0359	1.20	3.705	3.899	3.906	3.812
18	.0403	1.40	4.669	4.917	4.822	4.806
17	.0453	1.90	5.899	6.200	6.100	6.062
16	.0508	2.30	7.418	7.818	7.836	7.643
15	.0571	2.90	9.372	9.858	9.788	9.639
14	.0641	3.80	11.81	12.43	12.35	12.15
13	.0720	4.80	14.90	15.68	15.62	15.32
12	.0808	6.00	18.77	19.77	19.77	19.33
11	.0907	7.60	23.65	24.92	25.06	24.37
10	.1019	9.50	29.85	31.43	31.35	30.73
9	.1144	12.00	37.62	39.63	39.17	38.73
8	.1285	15.10	47.47	49.98	49.37	48.87
7	.1443	19.10	59.86	63.02	62.49	61.62
6	.1620	24.20	75.44	79.46	79.09	77.67
5	.1819	30.50	95.11	100.20	99.82	97.92
4	.2043	38.40	120.00	126.40	125.40	123.50

Variations from these weights must be expected in practice.



# • WEIGHTS AND MEASURES

## COMPARATIVE WEIGHTS OF WIRE (Cont.)

Diameter B. & S. Gauge	Deci.	2 S ALUMINUM	BRASS	COPPER	MONEL	18% NICKEL SILVER
		Pounds Per 1000 Feet				
3	.2294	48.40	151.30	159.30	158.10	155.70
2	.2576	61.40	190.70	200.90	200.50	196.40
1	.2893	77.10	240.60	253.30	250.50	247.70
1/0	.3249	97.40	303.40	319.50	318.10	312.40
2/0	.3648	122.90	382.50	402.80	401.50	393.80
3/0	.4096	.....	482.30	507.90	508.50	496.50
4/0	.4600	.....	608.30	640.50	.....	626.20

For the weight of other Metals, use the following table:

Aluminum (17 S) = Weight of 2 S Aluminum Wire Multiplied by 1.03

Nickel = Same Weight as Monel

Phosphor Bronze = Weight of Brass Wire Multiplied by 1.0492

## COMPARATIVE WEIGHT OF RIVETS

### ROUND—BRAZIER—BUTTON—FLAT AND \*COUNTERSUNK HEADS BASED ON WEIGHT OF 2 S ALUMINUM

#### DIAMETER AND DECIMAL EQUIVALENT OF RIVET

Length of Rivet	1/16"	3/32"	1/8"	5/32"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"
	(.0625")	(.093")	(.125")	(.156")	(.1875")	(.250")	(.3125")	(.375")	(.4375")	(.500")

#### Number of Rivets Per Pound

1/16"	19200	.....	.....	.....	.....	.....	.....	.....	.....	.....
3/32"	16120	5750	2600	.....	.....	.....	.....	.....	.....	.....
1/8"	13900	5100	2360	.....	.....	.....	.....	.....	.....	.....
3/16"	10950	4170	2000	1130	.....	.....	.....	.....	.....	.....
1/4"	9000	3540	1740	990	630	295	.....	.....	.....	.....
5/16"	7600	3060	1515	885	565	270	152	.....	.....	.....
3/8"	5960	2650	1340	800	515	250	140	87	.....	.....
7/16"	5310	2360	1220	725	470	230	132	82	.....	.....
1/2"	4820	2140	1115	665	435	215	124	78	57	44
3/8"	4030	1795	945	570	375	190	110	70	51	39
3/4"	3510	1560	825	500	330	170	96	64	44	31
7/8"	2970	1320	730	450	300	153	90	59	41	29
1"	2660	1180	655	400	270	140	83	54	38	27
1 1/8"	.....	1065	590	365	245	128	77	50	35	25
1 1/4"	.....	975	540	335	225	118	71	47	33	24
1 3/8"	.....	873	483	310	210	110	66	44	31	22
1 1/2"	.....	815	452	290	195	103	62	41	29	21

Variations from these weights must be expected in practice.

\*There are about 10% more Countersunk Head Type per pound.

# WEIGHTS AND MEASURES •

## COMPARATIVE WEIGHT OF RIVETS (Cont.)

ROUND—BRAZIER—BUTTON—FLAT AND \*COUNTERSUNK HEADS  
(Cont.)

BASED ON WEIGHT OF 2 S ALUMINUM

Length of Rivet	DIAMETER AND DECIMAL EQUIVALENT OF RIVET									
	1/16"	3/32"	1/8"	5/32"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"
	(.0625")	(.093")	(.125")	(.156")	(.1875")	(.250")	(.3125")	(.375")	(.4375")	(.500")
Number of Rivets Per Pound										
1 3/4"	.....	.....	390	250	170	92	56	37	26	19
2"	.....	.....	350	225	153	81	50	34	24	17
2 1/4"	.....	.....	.....	.....	137	74	46	31	22	16
2 1/2"	.....	.....	.....	.....	126	68	42	28	20	15
2 3/4"	.....	.....	.....	.....	116	62	38	25	18	14
3"	.....	.....	.....	.....	108	58	35	23	17	13
3 1/4"	.....	.....	.....	.....	.....	56	34	23	17	13
3 1/2"	.....	.....	.....	.....	.....	52	33	22	16	12
3 3/4"	.....	.....	.....	.....	.....	49	31	21	15	11
4"	.....	.....	.....	.....	.....	46	29	20	14	10
4 1/4"	.....	.....	.....	.....	.....	.....	.....	.....	13	10
4 1/2"	.....	.....	.....	.....	.....	.....	.....	.....	13	9

\*There are about 10% more Countersunk Head Type per pound.

To determine the weight of Rivets for other Metals, multiply the above weights by the following factors:

Aluminum (17 S)	—1.030
Brass	— .324
Copper	— .306
Monel	— .305
Nickel	— .305

Variations from these figures must be expected in practice.

# • WEIGHTS AND MEASURES

## CONVERSION FACTORS WEIGHT OF METALS

FOR

### WROUGHT ALUMINUM ALLOYS AND OTHER METALS

BASED ON PURE ALUMINUM (2 S)—DENSITY 2.71  
WEIGHT .0979 LBS. PER CU. INCH

1.01	Times Weight of 2 S Aluminum	=	Weight of 3 S Aluminum
1.03	" " " " "	=	" " 17 S "
1.03	" " " " "	=	" " 25 S "
0.99	" " " " "	=	" " 51 S "
3.06	" " " " "	=	" " Brass
3.20	" " " " "	=	" " Copper
3.20	" " " " "	=	" " Monel
3.20	" " " " "	=	" " Nickel
2.88	" " " " "	=	" " Steel
2.60	" " " " "	=	" " Zinc

BASED ON BRASS—DENSITY 8.46—WEIGHT .300 LBS.  
PER CUBIC INCH

1.039	Times Weight of Brass	=	Weight of Commercial Bronze (90%)
1.052	" " " " "	=	" " Copper
1.023	" " " " "	=	" " Low Brass (80%)
1.03	" " " " "	=	" " Low Brass (85%)
1.05	" " " " "	=	" " Monel
1.05	" " " " "	=	" " Nickel
1.033	" " " " "	=	" " Nickel Silver (18%)
1.046	" " " " "	=	" " Phosphor Bronze (5%)
0.994	" " " " "	=	" " Tobin Bronze
1.05	" " " " "	=	" " Inconel
1.045	" " " " "	=	" " Nickel-Clad Steel (10% Clad)
1.00	" " " " "	=	" " Muntz Metal
1.00	" " " " "	=	" " Architectural Bronze

### WEIGHT OF METALS AND ALLOYS

Aluminum—Wrought (2 S)	—	.0979	lbs.	per Cubic Inch
Aluminum—Cast	—	.0924	"	" " "
Brass	—	.300	"	" " "
Cast Iron	—	.260	"	" " "
Copper	—	.318	"	" " "
Inconel	—	.319	"	" " "
Lead	—	.411	"	" " "
Magnesium	—	.0629	"	" " "
Monel	—	.318	"	" " "
Nickel	—	.319	"	" " "
Steel	—	.293	"	" " "
Zinc	—	.2598	"	" " "

The above tables are approximate and variations must be expected in practice.



## COMPARATIVE PHYSICAL AND MECHANICAL PROPERTIES OF METALS PHYSICAL PROPERTIES

(Approximate)

	Density	Melting Point Degrees C	Melting Point Degrees F	Specific Heat	Heat Expansion Per °C	Heat Condy % of Cu	Elec. Condy % of Cu	Coef. of Elec. Res. Per °C	Modulus of Elast'y psi
Monel.....	8.80	1300-1350	2370-2460	0.127	.000014	6.6	4.	.0019	26,000,000
Nickel.....	8.85	1440	2625	0.130	.000013	15.5	16.	.0041	30,000,000
Inconel.....	8.55	1370	2500	.....	.000013	3.5	.....	.....	31,000,000
Copper.....	8.89	1083	1980	0.093	.000017	100.	100.	.0040	16,000,000
Brass.....	8.46	900	1650	0.088	.000020	28.	28.	.0015	13,800,000
Phosphor Bronze.....	8.66	*	.....	0.104	.000018	.....	36.	.0039	16,000,000
Everdur.....	8.30	1050	1920	.....	.000017	30.	6.	.....	15,000,000
Nickel Silver.....	8.75	*	.....	0.095	.000018	7.6	5.2	.0003	17,000,000
Iron.....	7.7	1535	2795	0.110	.000013	15.	15.	.0062	25,000,000
Steel.....	7.9	1400	2550	.....	.000013	6-12	3-15	.....	30,000,000
Cast Iron.....	7.2	1000-1200	1830-219	.....	.000010	10-12	2-12	.....	12-27,000,000
Duriron.....	7.0	1260	2300	.....	.000028	17.4	2.5	.....	.....
14% Cr Iron.....	7.7	1480	2715	.....	.000011	5.	2.8	.....	30,000,000
17% Cr Iron.....	7.6	1400	2550	0.118	.000010	5.	.....	.0015	.....
18/8 Cr/Ni Iron.....	7.9	1400	2550	0.118	.000017	3.6	2.8	.....	28,600,000
Zinc.....	7.14	420	780	0.094	.000029	29.	28.2	.0040	13,700,000
Lead.....	11.38	327	620	0.031	.000029	9.	7.8	.0041	800,000
Aluminum.....	2.7	660	1220	0.218	.000024	52.	56-59	.0042	10,000,000
Duralumin.....	2.8	600	1110	.....	.000022	40.	32.	.....	10,000,000
Silver.....	10.51	960	1760	0.056	.000019	110.	106.	.0040	9,000,000
Platinum.....	21.5	1755	3190	0.032	.000008	18.	15.	.0036	23,000,000

\*Varies according to Grade—Consult us.

These figures should not be used for specification purposes because they are subject to manufacturing limitations which may alter the values.

# ● WEIGHTS AND MEASURES

## MECHANICAL PROPERTIES

	Tensile Strength psi	Yield Point psi	Elastic Limit psi	Endurance Limit psi	Elong. in 2" %	Reduct. in Area %	Brinell Hardness 500 kg.	Brinell Hardness 3,000 kg.
Monel.....	70- 85,000	25- 35,000	20- 30,000	35,000	35-50	65-75	80-105	118-135
Hot-worked	80-105,000	40- 85,000	25- 65,000	35-40,000	20-45	90-65	125-190	190-175
Cold-worked	75-175,000	40-150,000	30-100,000	35-50,000	35- 1	45-75	110-240	115-250
Nickel.....	65- 75,000	20- 30,000	17- 23,000	30,000	43-53	65-75	85-105	115-130
Inconel.....	80- 95,000	30- 40,000	20- 30,000	.....	45-55	65-75	.....	.....
Annnealed	to 200,000	.....	.....	.....	.....	.....	.....	.....
Cold-worked	30,000	.....	.....	10,000	70-75	50-55	30- 40	.....
Copper.....	.....	.....	3,000	16,500	15	55	.....	.....
Brass.....	45,000	.....	8,500	18,000	70	70	50- 60	.....
Hot-worked	80- 85,000	.....	36- 38,000	25,000	15	60	.....	.....
Annnealed	50,000	.....	14,000	20,000	70	80	60	.....
Cold-worked	to 145,000	.....	.....	.....	.....	.....	.....	.....
Everdur.....	65- 70,000	25- 35,000	.....	25,000	.....	55-65	.....	.....
Annnealed	85-110,000	60- 70,000	.....	.....	50-60	22-49	.....	.....
Cold-worked	50,000	.....	6,500	20,000	13-30	70	75- 85	.....
Nickel Silver....	70,000	.....	30,000	23,000	25	50	.....	.....
Wrought Iron....	40- 50,000	28- 34,000	21- 26,000	24,000	40-45	40-45	85- 95	.....
Mild Steel.....	75,000	.....	45,000	35,000	30	65	.....	140-170
Alloy Steel (3120)	116,000	.....	85,000	.....	23	48	.....	270
Heat-treated	.....	.....	.....	.....	35	75	.....	160
Annnealed	80,000	75- 85,000	45,000	.....	.....	.....	.....	.....
Hot-worked	100-115,000	.....	.....	.....	30-35	70-75	.....	140-175
Annnealed	70- 75,000	45- 55,000	.....	.....	20-25	45-50	.....	.....
Hot-worked	85- 95,000	65- 75,000	.....	.....	.....	60-70	130-140	.....
Annnealed	80- 90,000	35- 40,000	20- 25,000	45,000	35-60	.....	.....	.....
Cold-worked	to 300,000	.....	.....	.....	.....	.....	.....	.....
Aluminum.....	12- 15,000	4- 7,000	2- 3,000	6,000	30-45	75-80	30- 35	.....
Annnealed	20,000	.....	12,000	8,000	18	65	.....	.....
Cold-worked	.....	.....	.....	14,000	15-20	40-45	.....	.....
Duralumin.....	25- 35,000	7- 10,000	7- 10,000	18,000	18-25	20-25	90-105	.....
Annnealed	55- 65,000	.....	30- 44,000	.....	.....	.....	.....	.....
Heat-treated	.....	.....	< 21,000	.....	.....	.....	.....	.....
Lead.....	2,800	.....	.....	.....	.....	.....	.....	.....

These figures should not be used for specification purposes because they are subject to manufacturing limitations which may alter the values.

# WEIGHTS AND MEASURES •

## COMPARISON OF GAUGES

### EXPRESSED IN DECIMALS OF AN INCH

Gauge No.	American or Brown & Sharpe	Birmingham or Stubs	Wash. & Moen	Imperial S. W. G.	London or Old English	United States Standard
0000000	.....	....	.490	.500	.....	.500
000000	.5800	....	.460	.464	.....	.46875
00000	.5165	....	.430	.432	.....	.4375
0000	.4600	.454	.3938	.400	.454	.40625
000	.4096	.425	.3625	.372	.425	.375
00	.3648	.380	.3310	.348	.38	.34375
0	.3249	.340	.3065	.324	.34	.3125
1	.2893	.300	.2830	.300	.3	.28125
2	.2576	.284	.2625	.276	.284	.265625
3	.2294	.259	.2437	.252	.259	.25
4	.2043	.238	.2253	.232	.238	.234375
5	.1819	.220	.2070	.212	.22	.21875
6	.1620	.203	.1920	.192	.203	.203125
7	.1443	.180	.1770	.176	.18	.1875
8	.1285	.165	.1620	.160	.165	.171875
9	.1144	.148	.1483	.144	.148	.15625
10	.1019	.134	.1350	.128	.134	.140625
11	.09074	.120	.1205	.116	.12	.125
12	.08081	.109	.1055	.104	.109	.109375
13	.07196	.095	.0915	.092	.095	.09375
14	.06408	.083	.0800	.080	.083	.078125
15	.05707	.072	.0720	.072	.072	.0703125
16	.05082	.065	.0625	.064	.065	.0625
17	.04526	.058	.0540	.056	.058	.05625
18	.04030	.049	.0475	.048	.049	.05
19	.03589	.042	.0410	.040	.040	.04375
20	.03196	.035	.0348	.036	.035	.0375
21	.02846	.032	.03175	.032	.0315	.034375
22	.02535	.028	.0286	.028	.0295	.03125
23	.02257	.025	.0258	.024	.027	.028125
24	.02010	.022	.0230	.022	.025	.025
25	.01790	.020	.0204	.020	.023	.021875
26	.01594	.018	.0181	.018	.0205	.01875
27	.01420	.016	.0173	.0164	.0187	.0171875
28	.01264	.014	.0162	.0148	.0165	.015625
29	.01126	.013	.0150	.0136	.0155	.0140625
30	.01003	.012	.0140	.0124	.01372	.0125



# • WEIGHTS AND MEASURES

## COMPARISON OF GAUGES (Cont.) EXPRESSED IN DECIMALS OF AN INCH (Cont.)

Gauge No.	American or Brown & Sharpe	Birmingham or Stubs	Wash. & Moen	Imperial S. W. G.	London or Old English	United States Standard
31	.008928	.010	.0132	.0116	.0122	.0109375
32	.007950	.009	.0128	.0108	.0112	.01015625
33	.007080	.008	.0118	.0100	.0102	.009375
34	.006305	.007	.0104	.0092	.0095	.00859375
35	.005615	.005	.0095	.0084	.009	.0078125
36	.005000	.004	.0090	.0076	.0075	.00703125
37	.004453	....	.0085	.0068	.0065	.006640625
38	.003965	....	.008	.0060	.0057	.00625
39	.003531	....	.0075	.0052	.005	.....
40	.003145	....	.007	.0048	.0045	.....
41	.002800	....	....	.0044	....	.....
42	.002494	....	....	.004	....	.....
43	.002221	....	....	.0036	....	.....
44	.001978	....	....	.0032	....	.....
45	.001761	....	....	.0028	....	.....
46	.001568	....	....	.0024	....	.....
47	.001397	....	....	.002	....	.....
48	.001244	....	....	.0016	....	.....
49	.001018	....	....	.0012	....	.....
50	.0009863	....	....	.001	....	.....

# WEIGHTS AND MEASURES •

## FRACTIONS OF AN INCH

### WITH DECIMAL EQUIVALENTS

			$\frac{1}{64}$	.015625
			$\frac{1}{32}$	.03125
			$\frac{3}{64}$	.046875
	$\frac{1}{16}$			.0625
			$\frac{5}{64}$	.078125
			$\frac{3}{32}$	.09375
			$\frac{7}{64}$	.109375
	$\frac{1}{8}$			.125
			$\frac{9}{64}$	.140625
			$\frac{5}{32}$	.15625
			$\frac{11}{64}$	.171875
	$\frac{3}{16}$			.1875
			$\frac{13}{64}$	.203125
			$\frac{7}{32}$	.21875
			$\frac{15}{64}$	.234375
	$\frac{1}{4}$			.250
			$\frac{17}{64}$	.265625
			$\frac{9}{32}$	.28125
			$\frac{19}{64}$	.296875
			$\frac{5}{16}$	.3125
			$\frac{21}{64}$	.328125
			$\frac{11}{32}$	.34375
			$\frac{23}{64}$	.359375
	$\frac{3}{8}$			.375
			$\frac{25}{64}$	.390625
			$\frac{13}{32}$	.40625
			$\frac{27}{64}$	.421875
	$\frac{7}{16}$			.4375
			$\frac{29}{64}$	.453125
			$\frac{15}{32}$	.46875
			$\frac{31}{64}$	.484375
	$\frac{1}{2}$			.500

(Continued on next page)

# ● WEIGHTS AND MEASURES

## FRACTIONS OF AN INCH (Cont.)

### WITH DECIMAL EQUIVALENTS (Cont.)

				$\frac{33}{64}$	.515625
			$\frac{17}{32}$	—	.53125
				$\frac{35}{64}$	.546875
	$\frac{9}{16}$	—	—	—	.5625
				$\frac{37}{64}$	.578125
			$\frac{19}{32}$	—	.59375
				$\frac{39}{64}$	.609375
	$\frac{5}{8}$	—	—	—	.625
				$\frac{41}{64}$	.640625
			$\frac{21}{32}$	—	.65625
				$\frac{43}{64}$	.671875
	$\frac{11}{16}$	—	—	—	.6875
				$\frac{45}{64}$	.703125
			$\frac{23}{32}$	—	.7185
				$\frac{47}{64}$	.734375
$\frac{3}{4}$	—	—	—	—	.750
				$\frac{49}{64}$	.765625
			$\frac{25}{32}$	—	.78125
				$\frac{51}{64}$	.796875
	$\frac{13}{16}$	—	—	—	.8125
				$\frac{53}{64}$	.828125
			$\frac{27}{32}$	—	.84375
				$\frac{55}{64}$	.859375
	$\frac{7}{8}$	—	—	—	.875
				$\frac{57}{64}$	.890625
			$\frac{29}{32}$	—	.90625
				$\frac{59}{64}$	.921875
	$\frac{15}{16}$	—	—	—	.9375
				$\frac{61}{64}$	.953125
			$\frac{31}{32}$	—	.96875
				$\frac{63}{64}$	.984375
1	—	—	—	—	1.000000



# WEIGHTS AND MEASURES •

## CONVERSION TABLES

### DECIMAL EQUIVALENTS OF MILLIMETERS TO INCHES

Mm.	Inches	Mm.	Inches	Mm.	Inches	Mm.	Inches
1	.03937	26	1.02362	51	2.00787	76	2.99212
2	.07874	27	1.06299	52	2.04724	77	3.03149
3	.11811	28	1.10236	53	2.08661	78	3.07086
4	.15748	29	1.14173	54	2.12598	79	3.11023
5	.19685	30	1.18110	55	2.16535	80	3.14960
6	.23622	31	1.22047	56	2.20472	81	3.18897
7	.27559	32	1.25984	57	2.24409	82	3.22834
8	.31496	33	1.29921	58	2.28346	83	3.26771
9	.35433	34	1.33858	59	2.32283	84	3.30708
10	.39370	35	1.37795	60	2.36220	85	3.34645
11	.43307	36	1.41732	61	2.40157	86	3.38582
12	.47244	37	1.45669	62	2.44094	87	3.42519
13	.51181	38	1.49606	63	2.48031	88	3.46456
14	.55118	39	1.53543	64	2.51968	89	3.50393
15	.59055	40	1.57480	65	2.55905	90	3.54330
16	.62992	41	1.61417	66	2.59842	91	3.58267
17	.66929	42	1.65354	67	2.63779	92	3.62204
18	.70866	43	1.69291	68	2.67716	93	3.66141
19	.74803	44	1.73228	69	2.71653	94	3.70078
20	.78740	45	1.77165	70	2.75590	95	3.74015
21	.82677	46	1.81102	71	2.79527	96	3.77952
22	.86614	47	1.85039	72	2.83464	97	3.81889
23	.90551	48	1.88976	73	2.87401	98	3.85826
24	.94488	49	1.92913	74	2.91338	99	3.89763
25	.98425	50	1.96850	75	2.95275	100	3.93700

### WEIGHTS AND MEASURES

#### Metric and English

#### LENGTH

1 mil	=	.001	inch
	=	.025400	millimeter
	=	.0025400	centimeter
1 inch	=	1000	mils
	=	25.400	millimeters
	=	2.5400	centimeters
1 foot	=	30.480	centimeters
	=	.30480	meter
1 yard	=	91.440	centimeters
	=	.9144	meter

These tables are theoretically correct, but variations must be expected in practice.

# • WEIGHTS AND MEASURES

## WEIGHTS AND MEASURES (Cont.)

### Metric and English

#### LENGTH (Cont.)

1 mile	=	1609.4	meters
	=	1.6094	kilometers
1 millimeter	=	39.370	mils
	=	.039370	inch
1 centimeter	=	.39370	inch
	=	.032808	foot
1 meter	=	39.370	inches
	=	3.2808	feet
1 kilometer	=	3280.8	feet
	=	.62137	mile

#### SURFACE

1 circ. mil	=	.78540	sq. mil
	=	.000001	circ. inch
	=	.00064516	circ. millimeter
1 sq. mil	=	1.2732	circ. mils
	=	.000001	sq. inch
	=	.00064516	sq. millimeter
1 circ. inch	=	1000000	circ. mils
	=	645.16	circ. millimeters
	=	6.4516	circ. centimeters
1 square inch	=	1000000	sq. mils
	=	1273240	circ. mils
	=	645.16	sq. millimeters
	=	6.4516	sq. centimeters
1 square foot	=	929.03	sq. centimeters
1 circ. millimeter	=	1550.0	circ. mils
1 circ. centimeter	=	155000	circ. mils
1 circ. millimeter	=	.15500	circ. inch
1 sq. millimeter	=	1973.5	circ. mils
	=	.0015500	sq. inch
1 sq. centimeter	=	197352	circ. mils
	=	.15500	sq. inch

#### VOLUME

1 cubic inch	=	16.387	cubic centimeters
1 cubic foot	=	28317	cubic centimeters
1 cubic centimeter	=	.061023	cubic inch
1 cubic inch of water	=	.0361	pounds
1 cubic foot of water	=	62.5	pounds

#### WEIGHT

1 pound (avoir.)	=	453.59	grams
1 gram	=	.0022046	pound (avoir.)
1 kilogram	=	2.2046	pounds (avoir.)

## MISCELLANEOUS CONVERSION FACTORS

### Metric and English

TO CHANGE FROM	TO	MULTIPLY BY
Feet	Meters	0.3048
Miles	Kilometers	1.60935
Meters	Inches	39.37
Meters	Feet	3.28083
Kilometers	Miles	0.62137

These tables are theoretically correct, but variations must be expected in practice.

# WEIGHTS AND MEASURES •

## MISCELLANEOUS CONVERSION FACTORS (Cont.)

### Metric and English

TO CHANGE FROM	TO	MULTIPLY BY
Square feet	Square meters	0.0929
Square yards	Square meters	0.8361
Square meters	Square yards	1.196
Cubic yards	Cubic meters	0.7646
Cubic meters	Cubic yards	1.308
Fluid ounces	Cubic centimeters	29.574
Quarts	Liters	0.9464
Cubic centimeters	Fluid ounces	0.0344
Liters	Quarts	1.0567
Grains	Milligrams	64.7989
Pounds (Avoirdupois)	Kilograms	0.4536
Ounces (Apothecary)	Grams	31.1035
Pounds (Apothecary)	Kilograms	0.3732
Grams	Grains	15.4324
Kilograms	Pounds	2.2046
Kilowatts	Horse Power	1.34
Horse Power	Kilowatts	0.746
B. T. U.	Calories	252.0
Calories	B. T. U.	.003968
Pounds	Grams	453.6
Ounces (av.)	Grams	28.35
Inches	Centimeters	2.54
Inches	Decimeters	0.254
Feet	Centimeters	30.48
Feet	Decimeters	3.048
Square Inches	Square Centimeters	6.452
Square Inches	Square Decimeters	0.0645
Square Feet	Square Centimeters	929.0
Square Feet	Square Decimeters	9.29
Cubic Inches	Cubic Centimeters	16.387
Ounces per Square Foot	Millig. per Sq. Decimeter	3050.
Grams per Sq. In. per Hr.	Millig. per Sq. Decimeter per Day	360000.0
Pounds per Sq. Ft. per Yr.	Millig. per Sq. Decimeter per Day	133.8
Grams	Pounds	0.002205
Grams	Ounces (av.)	0.03527
Centimeters	Inches	0.3937
Decimeters	Inches	3.937
Centimeters	Feet	0.03281
Decimeters	Feet	0.3281
Square Centimeters	Square Inches	0.1550
Square Decimeters	Square Inches	15.50
Square Centimeters	Square Feet	0.001076
Square Decimeters	Square Feet	0.1076
Cubic Centimeters	Cubic Inches	0.06102
Milligs. per Sq. Decimeter	Ounces per Sq. Foot	0.0003279
Milligs. per Sq. Decimeter per Day	Grams per Sq. In. per Hr.	0.00000278
Milligs. per Sq. Decimeter per Day	Pounds per Sq. Ft. per Year	0.00747

These tables are theoretically correct, but variations must be expected in practice.



# • WEIGHTS AND MEASURES

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## WEIGHTS AND MEASURES

### MEASURES OF LENGTH

1 mile = 1760 yards = 5280 feet.

1 yard = 3 feet = 36 inches.

1 foot = 12 inches.

The following measures of length are also used occasionally:

1 mil = 0.001 inch. 1 fathom = 2 yards = 6 feet.

1 rod = 5.5 yards = 16.5 feet. 1 hand = 4 inches. 1 span = 9 inches.

### SURVEYOR'S MEASURE

1 mile = 8 furlongs = 80 chains.

1 furlong = 10 chains = 220 yards.

1 chain = 4 rods = 22 yards = 66 feet = 100 links.

1 link = 7.92 inches.

### NAUTICAL MEASURE

1 league = 3 nautical miles.

1 nautical mile (knot) = 6080.26 feet = 1.1516 statute mile.

One degree at the equator = 60 nautical miles = 69.168 statute miles.

360 degrees = 21,600 nautical miles = 24,874.5 statute miles = circumference of earth at the equator.

### SQUARE MEASURE

1 square mile = 640 acres = 6400 square chains.

1 acre = 10 square chains = 4840 square yards = 43,560 square feet.

1 square chain = 16 square rods = 484 square yards = 4356 square feet.

1 square rod = 30.25 square yards = 272.25 square feet = 625 square links.

1 square yard = 9 square feet.

1 square foot = 144 square inches.

An acre is equal to a square, the side of which is 208.7 feet.

### MEASURE USED FOR DIAMETERS AND AREAS OF ELECTRIC WIRES

1 circular inch = area of circle 1 inch in diameter = 0.7854 square inch.

1 circular inch = 1,000,000 circular mils.

1 square inch = 1.2732 circular inch = 1,273,239 circular mils.

A circular mil is the area of a circle 0.001 inch in diameter.

### CUBIC MEASURE

1 cubic yard = 27 cubic feet.

1 cubic foot = 1728 cubic inches.

The following measures are also used for wood and masonry:

1 cord of wood = 4 x 4 x 8 feet = 128 cubic feet.

1 perch of masonry =  $16\frac{1}{2} \times 1\frac{1}{2} \times 1$  foot =  $24\frac{3}{4}$  cubic feet.

# WEIGHTS AND MEASURES •

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## WEIGHTS AND MEASURES (Cont.)

### SHIPPING MEASURE

For measuring entire internal capacity of a vessel:

1 register ton = 100 cubic feet.

For measurement of cargo:

1 U.S. shipping ton = 40 cubic feet = 32.143 U.S. bushels = 31.16 Imperial bushels.

1 British shipping ton = 42 cubic feet = 33.75 U.S. bushels = 32.72 Imperial bushels.

### DRY MEASURE

1 bushel (U.S. or Winchester struck bushel) = 1.2445 cubic foot = 2150.42 cubic inches.

1 bushel = 4 pecks = 32 quarts = 64 pints.

1 peck = 8 quarts = 16 pints.

1 quart = 2 pints.

1 heaped bushel =  $1\frac{1}{4}$  struck bushel.

1 cubic foot = 0.8036 struck bushel.

1 British Imperial bushel = 8 Imperial gallons = 1.2837 cubic foot = 2218.19 cubic inches.

### LIQUID MEASURE

1 U. S. gallon = 0.1337 cubic foot = 231 cubic inches = 4 quarts = 8 pints.

1 quart = 2 pints = 8 gills.

1 pint = 4 gills.

1 British Imperial gallon = 1.2003 U. S. gallon = 277.27 cubic inches.

1 cubic foot = 7.48 U. S. gallons.

### OLD LIQUID MEASURE

1 tun = 2 pipes = 3 puncheons.

1 pipe or butt = 2 hogsheads = 4 barrels = 126 gallons.

1 puncheon = 2 tierces = 84 gallons.

1 hogshead = 2 barrels = 63 gallons.

1 tierce = 42 gallons.

1 barrel =  $31\frac{1}{2}$  gallons.

### APOTHECARIES' FLUID MEASURE

1 U. S. fluid ounce = 8 drachms = 1.805 cubic inches =  $\frac{1}{128}$  U. S. gallon.

1 fluid drachm = 60 minims.

1 British fluid ounce = 1.732 cubic inch.

### MEASURES OF WEIGHT

Avoirdupois or Commercial Weight

1 gross or long ton = 2240 pounds.

1 net or short ton = 2000 pounds.

1 pound = 16 ounces = 7000 grains.

1 ounce = 16 drachms = 437.5 grains.

# • WEIGHTS AND MEASURES

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## WEIGHTS AND MEASURES (Cont.)

### MEASURES OF WEIGHT (Cont.)

The following measures for weight are now seldom used in the United States:

- 1 hundred-weight = 4 quarters = 112 pounds (1 gross or long ton = 20 hundred-weights); 1 quarter = 28 pounds; 1 stone = 14 pounds; 1 quintal = 100 pounds.

### TROY WEIGHT, USED FOR WEIGHING GOLD AND SILVER

- 1 pound = 12 ounces = 5760 grains.
- 1 ounce = 20 pennyweights = 480 grains.
- 1 pennyweight = 24 grains.
- 1 carat (used in weighing diamonds) = 3.168 grains.
- 1 grain Troy = 1 grain avoirdupois = 1 grain apothecaries' weight.

### APOTHECARIES' WEIGHT

- 1 pound = 12 ounces = 5760 grains.
- 1 ounce = 8 drachms = 840 grains.
- 1 drachm = 3 scruples = 60 grains.
- 1 scruple = 20 grains.

### MEASURES OF PRESSURE

- 1 pound per square inch = 144 pounds per square foot = 0.068 atmosphere = 2.042 inches of mercury at 62 degrees F. = 27.7 inches of water at 62 degrees F. = 2.31 feet of water at 62 degrees F.
- 1 atmosphere = 30 inches of mercury at 62 degrees F. = 14.7 pounds per square inch = 2116.3 pounds per square foot = 33.95 feet of water at 62 degrees F.
- 1 foot of water at 62 degrees F. = 62.355 pounds per square foot = 0.433 pound per square inch.
- 1 inch of mercury at 62 degrees F. = 1.132 foot of water = 13.58 inches of water = 0.491 pound per square inch.

### MISCELLANEOUS

- 1 great gross = 12 gross = 144 dozen.
- 1 gross = 12 dozen = 144 units.
- 1 dozen = 12 units.
- 1 score = 20 units.
- 1 quire = 24 sheets.
- 1 ream = 20 quires = 480 sheets.
- 1 ream printing paper = 500 sheets.



# WEIGHTS AND MEASURES •

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## USEFUL RULES CALCULATIONS

### TO FIND THE CAPACITY OF A TANK IN GALLONS

1. All measurements must be reduced to inches.  
For rectangular tanks, multiply the length by the width by the depth.  
For cylindrical tanks, multiply the length by the square of the diameter by .7854.  
For elliptical section tanks, multiply the length by the short diameter by the long diameter by .0339.
2. Divide the result of any of the above calculations by 231, which is the number of cubic inches in a gallon; the result is the capacity of the tank in gallons.

### RELATIVE TO A CIRCLE

- To find Circumference—Multiply the diameter by 3.1416; or, divide diameter by 0.3183.
- To find Diameter—Multiply the circumference by 0.3183; or, divide circumference by 3.1416.
- To find Radius—Multiply the circumference by 0.15915; or, divide circumference by 6.28318; or, divide diameter by 2.
- To find the Side of a Square to be inscribed in a Circle—Multiply diameter by 0.7071; or, multiply the circumference by 0.2251; or, divide the circumference by 4.4428.
- To find the Side of a Square to equal the Area of a Circle—Multiply the diameter by 0.8862; or, divide diameter by 1.1284; or, multiply the circumference by 0.2821; or, divide circumference by 3.545.
- To find the Area of a Circle—Multiply the circumference by one-quarter of the diameter; or, multiply the square of the diameter by 0.7854; or, multiply the square of the circumference by 0.7958; or, multiply the square of one-half the diameter by 3.1416.

### RELATIVE TO A SQUARE

- A side multiplied by 1.412 equals the diameter of a circle which will circumscribe the given square.
- A side multiplied by 4.443 equals the circumference of its circumscribing circle.
- A side multiplied by 1.1284 equals the diameter of a circle equal in area to that given square.
- A side multiplied by 3.545 equals circumference of an equal circle.
- To find the Area of an Ellipse—Multiply the product of its axis by .7854; or, multiply the product of its semi-axis by 3.14159.

# ● WEIGHTS AND MEASURES

## USEFUL RULES (Cont.)

### RELATIVE TO OTHER GEOMETRICAL FORMS

To find:

Contents of a cylinder = area of end  $\times$  length.

Contents of a wedge = area of triangular base  $\times$  altitude.

Surface of a cylinder = length  $\times$  circumference plus area of both ends.

Surface of a sphere = diameter squared  $\times$  3.1416; or, diameter  $\times$  circumference.

Contents of a sphere = diameter cubed  $\times$  0.5236.

Contents of a pyramid or cone, right or oblique, regular or irregular = area of base  $\times$  one-third of the altitude.

Area of a triangle = base  $\times$  one-half the altitude.

Area of a parallelogram = base  $\times$  altitude.

Area of a trapezoid = altitude  $\times$  one-half the sum of parallel sides.

### TO DETERMINE SAFE WORKING PRESSURE FOR SEAMLESS TUBE IN POUNDS PER SQUARE INCH

First—Ascertain the tensile strength of the metal in the tube.

Second—Multiply the tensile strength by the thickness of the metal in inches, or decimal parts of an inch.

Third—Divide by the radius (one-half of the inside diameter) expressed in inches, and the result shows the bursting pressure in pounds per square inch.

Fourth—Divide the bursting pressure by the factor of safety to determine safe working pressure. If a safety factor of six (6) is allowed, divide the bursting pressure by six (6).

Example: A tube 4 in. inside diameter, No. 8 B. & S. gauge, made of Brass, which has a tensile strength of 40,000 lbs. per square inch, shows 428 lbs. pressure per square inch as follows:

$$\begin{array}{rcl}
 & & 40,000 \text{ lbs. per square inch.} \\
 & & .1284 \text{ or No. 8 B. \& S. thick.} \\
 \frac{1}{2} \text{ dia. of 4 in. } \} & \overline{5136.0000} & \\
 \text{Tube} = 2 \text{ in. } \} & & \\
 \text{Factor of } & \overline{2568.0000} & \\
 \text{safety, 6 } \} & 428 \text{ lbs. pressure per square inch.} &
 \end{array}$$

For tensile strength of Metals see page 239.





# The Quality Metals of Industry

## A

### Acid Dipped Bronze

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Sheets ..... 105

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## B

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Aluminum ..... 63

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# The Quality Metals of Industry

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## Bronze

### Angles

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### Channels

<i>Architectural</i> .....	107
<i>Commercial</i> .....	103

Door Saddles .....	104
--------------------	-----

Fittings .....	112
----------------	-----

Nails, Everdur .....	115
----------------------	-----

Nuts, Everdur .....	113
---------------------	-----

Pipe, Everdur .....	112
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### Rods

<i>Architectural</i> .....	106
<i>Commercial</i> ...	102, 103

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-----------------------	-----

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------------------------	-----

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------------------------	-----

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